OBSTETRIC AND GYNAECOLOGIC CASES AND COMMENTARIES

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE M.MED (OBST/GYNAEC)

DEGREE OF THE UNIVERSITY OF DAR ES SALAAM

I declare that this dissertation is my personal work and has not been submitted in any other University.

DAVID JOHN KIHWELE, M.D. (U. DAR 1977)

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1983.

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DECLARATION.

I declare that this dissertation is my personal work and has not been submitted in any other University.

Dr. D.J. Kihwele





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This is to certify that Dr. D.J. Kihwele, personally treated all the cases described in this book under my director or delegated supervision. 137

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QUESTIONNAIRE FOR EVALUATION OF MCH AIDERS: MOTHERS FORM

1. Tribe: ..... Age: .....

3. Parity: .....

4. Marital status MARRIED/UNMARRIED: .....

5. Education by years: .....

6. Visits: (a) Gestation at lst visit: .....

(b) Number: - 1. .....

2. .....

3. ..... and over .....

7. Abnormal conditions: (a) Evaluator: .....
detected by:

(b) MCH aider: .....

(c) .....

8. Required referral by: (a) Evaluator: .....

(b) MCH aider: .....

9. Those required hospital delivery:

(a) Advised by MCH Aider: .....

(b) Not advised by MCH aider: .....

10. CONDITION:

Incomplete entry of more than 50% of history .....

Incomplete physical exam: .....

Dangerous to patient concenred - APH: .....

- More than 150 cm: .....

- No pelvic assessment: .....

- Others: .....

11. Fundal height - Evaluator: .....

- MCH aider: .....

12. Height recorded - correct: .....

- incorrect: .....

13. Immunization - should have completed: (1) 2.3 doses.....

(2) One dose: .....

- Never immunized: .....

14. BP - recorded - correct: ..... Incorrect: .....

- Not recorded: .....

15. VDRL/Khann done/not done: .....

Date of next visit KNOWN/UNKNOWN: .....

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PART I: INTRODUCTION.

GENERAL INTRODUCTION TO OBSTETRICS AND GYNAECOLOGY SERVICES.

These research papers and commentaries are presented in partial fulfilment of the requirements for the degree of Master of Medicine in Obstetrics and Gynaecology of the University of Dar es Salaam.

The author is employed by the Ministry of Health, Tanzania, and is presently working at Muhimbili Medical Centre, Dar es Salaam, Tanzania. The centre accommodates the Faculty of Medicine, University of Dar es Salaam. The main functions of the centre include:

i. Teaching the undergraduate and postgraduate students, nurses, midwives and paramedical students.

ii. Serving as the main consultant hospital in the country. It has the largest laboratory and the only radiotherapy facilities in the country.

iii. Serving as a Zonal consultant hospital for the Southern and Eastern zones comprising of Dar es Salaam, Coast, Mtwara, Lindi, Mbeya, Ruvuma, Iringa and Morogoro regions.

iv. Acting as a Regional hospital for Dar es Salaam and Coastal Regions.

The department of Obstetrics and Gynaecology functions as an autonomous unit although it is a subdivision of the surgical service department. The department is organized in four consultant/specialist firms. Each firm works independently with its own outpatient clinics, operation schedules and emergency duties.

The department has 369 beds. There are 73 gynaecological beds in Sewa Haji Block, and 296 Obstetric beds (115 at Ocean

PART I

GENERAL INTRODUCTION TO OBSTETRICS AND GYNAECOLOGY SERVICES.

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The review is on patients managed by the author, and research work done at Muhimbili Medical Centre, Dar es Salaam, Tanzania. The centre incorporates the Faculty of Medicine, University of Dar es Salaam. The main functions of the centre include:

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ii. Serving as the main consultant hospital in the country. It has the largest laboratory and the only radiotherapy facilities in the country.

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The department has 369 beds. There are 73 gynaecological beds housed in Sewa Haji Block, and 296 Obstetric beds (115 at Ocean

Road Hospital and 181 at Muhimbili Maternity Wing). Ocean Road Hospital is a unit for normal deliveries. The Muhimbili Maternity Block is for the high risk obstetric services.

The department is overwhelmed by the ever increasing public demand for its services. For instance although there are 369 beds, the daily bed state is between 600 and 700 patients.

OUT-PATIENT SERVICES:

This comprises of:

a) Casualty services

b) Antenatal clinics largely for referred patients

c) Gynaecology clinics

d) Specialized clinics which include:

i) Infertility

ii) Oncology

iii) Family planning.

The patients benefit from the outpatient services. Admissions may come as emergencies through, the casualty, appointments from out-patient clinics or referrals from upcountry hospitals. Emergencies are admitted through the casualty department to the firm on call.

1. INTRODUCTION TO GYNAECOLOGY:

Gynaecological services comprise of outpatient, inpatient and operative services.

A. The outpatient services:

There are four gynaecology clinics in a week one day for each firm, and one infertility clinic per week. These clinics are run by consultants/specialists and Residents. They are for consultations from peripheral clinics, follow-up from gynaecology inpatients and outpatients. The patients reach the gynaecology clinics by

being referred. They are then given appointments for the gynaecology clinic. The patients from upcountry have their appointments pre-arranged by their District/Regional Medical Officers.

At the first visit a full history and physical examination are done, The relevant investigations ordered. The investigations possible on outpatient basis are:

1. Blood analysis
2. Urine analysis
3. Endocervical swabs. Gram stain, culture and sensitivity.
4. Vaginal and cervical cytology.

The infertility clinic serves couples which have stayed together for more than one year without procriation. This clinic is attended by both partners. Full history and physical examination are done to the couple separately. Some investigations for infertility patients which are possible on an outpatient basic include:-

i. Pregnancy test
ii. Male fertility tests
iii. Menstrual flow for tuberculous endometritis
iv. Spinnbarkeit
v. Fern test
vi. Post coital tests and
vii. Hysterosalpingograms.

Testicular biopsies are done by the Urologist.

B. Inpatient services:

1. Admissions:

There are two wards for the gynaecological inpatients. All the admissions are seen by the Intern who takes a full history and does physical examination. The Resident reviews the patient to chec on the Intern's provisional diagnosis and line of management. A decision on the management of the patient is usually by the Resident

after consultation with the consultant/specialist if need be. The relevant investigations are ordered. Emergency urgent laboratory and radiological investigations are available all round the clock. Very urgent preliminary investigations may be communicated by telephone if need be.

In the year 1979/80 there were 8060 gynaecological admissions. More than half (57.8%) of which were due to abortions (Table 1). In the outpatient clinic once a diagnosis is made, the method of treatment is explained to the patient. If she accepts the proposed treatment, arrangements are made for admission. Other cases come as emergency cases.

Table 1: GYNAECOLOGICAL ADMISSIONS 1979/80

CONDITIONS	No.	%
1. Abortions	4659	57.8
2. P.I.D.	911	11.3
3. Benign Neoplasms	471	5.8
4. Malignant Neoplasms	309	3.8
5. Infertility	314	3.9
6. Mesntrual disorders	453	5.6
7. Extra uterine pregnancy	106	1.3
8. Genital fistulae	80	1.0
9. Miscellaneous	757	9.4
TOTAL	8060	100.0

2. Operations:

(a) Pre-operative preparation

(i) Before operation or admission for operation base line investigations are done:- Haemoglobin, blood picture, urine analysis, and the relevant investigations e.g. vaginal or endocervical swab for culture and sensitivity; before vaginal or perineal operations. Chest X-rays are not done routinely. On admission the patient is reviewed and if necessary an independent history and physical examination are carried out. The surgeon sees the patient for pre-operative assessment. Blood is grouped typed for Rh and kept ready for the operation. A written consent is obtained from an adult patient, or from a parent/guardian for a patient under 18 years of age. For operations involving sterilization; the husband's written consent is also obtained.

ii) The patient is instructed to take a light meal on the night before operation, and take nothing after 10.00 p.m.

iii) The site for operation is prepared. The abdomen, vulva and perineum are shaved and washed with soap. The patients going for vaginal operations are given in addition a savlon douch.

The patient is given a soap enema the night before operation and early in the morning of the operation day. Then the patient is given a bath and wears a clean theatre gown. An identification tag bearing her name and inpatient number is stuck on her arm. She is premedicated before being wheeled to the operating theatre.

(b) Anaesthesia:

(i) Premedication: About half an hour before operation the patients are given 0.6mg of Atropine sulphat, and 100mg of Pethidine or 15mg of Morphia intramuscularly.

ii) Induction: A freshly prepared "Pentothal" (Thiopentone Sodium) 250mg is given intravenously slowly.

iii) Muscle relaxation: "Brevedil" (Suxamethonium bromide) 40mg is given intravenously after Pentothal" Scoline 100mg may be given as an alternative. Oxygen is given intermittently by positive pressure for a couple of seconds before the patient is intubated with a cuffed endotracheal tube. When further relaxation is required during the operation injection of "Pavlon" (Pancromium bromide) 6 mg is given intravenously.

iv) Maintanance of anaesthesia: This is achieved by giving oxygen, nitrous oxide and ether or halothane. Initially they are given by intermittent positive pressure ventilation until the patient can breath spontaneously.

v) Reversal of anaesthesia: At the end of the operation Atropine sulphate 1 mg followed by Neostigmine 1 or 2mg are given intravenously. Atropine sulphate is supposed to counteract the bradycardia produced by neostigmine.

NB: (i) In very short operations like Dilatation and curettage, after induction anaesthesia, maintainance anaesthesia is given by mask without intubation.

(ii) Sometimes spinal anaesthesia is used specially for vulval operations and very ill patients.

(c) Procedure:

(i) Positioning and cleaning the site:

The patient is then placed in the appropriate position for the particular operation. For abdominal operations, the patient is placed in the dorsal position and the head of the table tilted to a Trendelenburg position. The lithotomy position is used for vulval/vaginal procedures. In high vesico-vaginal fistulae the knee chest

position is used. The site and its surroundings are cleaned first with flavin in spirit 1:1000 or Iodine skin preparation. The patient is then draped with sterile towels only exposing the incision site.

ii) Opening the abdomen:

The subumbilical midline incision is most commonly used. 3 to 4 transverse superficial markings are made on the skin using the back of the scapel point. These can prove to be useful landmarks to allow accurate apposition of the skin at the end of the operation.

Skin incision: A vertical skin incision is made with a steady force. The incision is carried down through the fat to the linea alba. Bleeding points are clamped with small artery forceps, and then tied with No. 3/0 plain or chromic catgut.

Incision of the aponeurosis: A 2 to 3cm incision is made on the rectus sheath along the linea alba. The edges are picked up by long artery (Spencer well's) forceps. The incision is then extended by a curved Mayo's scissors. The peritoneal fat is then incised.

Opening the peritoneal cavity: The peritoneum is picked up with two long straight artery forceps and are fully incised longitudinally avoiding the bowel. The long artery forceps are then re-applied. The longitudinal peritoneal incision is extended by a Mayo's scissors. Once the peritoneal cavity is opened the abdominal walls are retracted with a Dayen's or self retaining retractor. With good muscle relaxation abdominal packing is not necessary. If packing is necessary the intestines are packed off lightly and very carefully to avoid unnecessary compression and excessive handling.

iii) Closing the abdomen:

After completion of the operation the gauze, swabs and instruments are counted. The sigmoid colon and the omentum are drawn over the operating site to prevent subsequent adhesions.

Closing the peritoneum: The peritoneal edges are picked with four long artery forceps, one on either side and one on each end. Starting from above downwards the edges are approximated by a continuous chromic catgut No. 0 or Dexon. The edges are everted to prevent adhesion.

Closing the rectus sheath: The rectus sheath is then picked up. Using trocher pointed or cutting needle with No. 1 chromic catgut, the rectus is stitched with either continuous or interrupted stitches. Tension sutures are not used routinely except in the presence of infection or during secondary suture.

Subcutaneous layer: This layer is not sutured routinely. It is only sutured in very fat individuals. Interrupted stitches with plain catgut No. 3.0 are applied.

Closing the skin: The skin is closed by interrupted stitches of silk, each time making sure there is good apposition of the edges. Mitchel clips are seldomly used and mainly in small incisions. Subcuticular sutures are used only rarely.

iv) Dressing and wound toilet:

The stitched wound is cleaned with savlon, then with flavin in spirit. It is then covered with two or three layers of gauze and strapped.

(b) POST OPERATIVE CARE:

The patient is kept in the recovery room which is equiped with resuscitation facilities. The anaesthetic assistant monitors

the general condition, pulse, blood pressure and respiration. When the patient regains consciousness she is wheeled to the ward. In the ward the above parameters are monitored half hourly for 4 to 6 hours. If found normal the observation is done every hour depending on the condition of the patient. Temperature intake and output charts are also kept.

Antibiotics: are not routinely given after all gynaecological operations.

Fluids: 300 - 400mls of fluid are normally given by an intravenous drip per 24 hours. The fluids given are either Dextrose saline or 5% dextrose in water alternating with normal saline. These fluids may be given according to the laboratory electrolyte findings. The intravenous route is used until the bowel movements return to normal. Blood is given whenever necessary.

Ambulation: is encouraged. The patient is encouraged and helped to sit up by the first post operative day. Once the intravenous drip is removed the patient is helped to move around. She starts oral feeds after the bowel sounds have returned. The post operative haemoglobin level is estimated on the third or fourth post operative day. The skin stitches are removed on the 7th or 8th post operative day. When the wound is healed, and the general condition is good the patient is discharged. All the patients are seen at the gynaecological clinic six weeks after they are discharged. A summary of gynaecological operations performed during the period 1979/80 is presented in Table II.

Table II: GYNAECOLOGICAL OPERATIONS 1979/80

PROCEDURE	No.	%
1. Evacuations	2547	72.4
2. Laparatomies	281	5.9
3. Examination under anaesthesia	286	5.8
4. Diagnostic curettage	247	5.0
5. Operationson the cervix	141	2.9
6. Operations on the uterus	142	2.9
7. Repair of vesico-vaginal fistulae	82	1.7
8. Perineal operations	33	0.7
9. Endoscopies	62	1.3
10. Miscellaneous	66	1.3
TOTAL	4897	100.0

II. INTRODUCTION TO OBSTETRIC SERVICES:

The obstetric services provided by the department of Obstetrics and gynaecology include:-

a) Antenatal services for high risk pregnancies at Muhimbili Maternity Centre

b) Intrapartum services for normal deliveries at Ocean Road Hospital

c) Intrapartum services for high risk and abnormal deliveries at the Muhimbili Maternity Centre, and

d) Post-natal services for those who have had difficult deliveries.

The bed distribution for obstetric wards is as follows:

OCEAN ROAD HOSPITAL:

Labour ward: 16 beds - for normal intrapartum cases.

Ward 29: 26 beds for normal postnatal cases

Ward 31: 26 beds for normal postnatal cases

Ward 32: 26 beds for normal postnatal cases

Grade I and II: 21 for gynaecological cencer patients.

Total 115

MUHIMBILI MATERNITY BLOCK: A unit for high risk pregnancy.

Ward 33: 31 beds for septic postnatal cases and mothers who deliver before arrival (B.B.A.)

Ward 34: 14 - the labour ward

Ward 35: 12 - beds - Obstetric intensive care unit for conditions like EPH and Eclampsia.

Ward 35: 8 beds - Postnatal for mothers who are being observed.

Ward 37: 36 beds for clean post operative patients

Ward 38: 40 beds - Antenatal for EPH gestosis and miscelleneous high risk pregnancies.

Ward: 39: 40 beds - for anaemias and miscelleneous high risk pregnancies.

Total 181 beds

A. ANTENATAL CARE:

Except for a few paying patients (Grade I and II) the department provides antenatal services to mothers with high risk pregnancies only. There are special guidelines by which these mothers are identified in the peripheral clinics. The patients are then referred to Muhimbili Maternity clinics, which are run by specialists, consultants and Residents supported by a team of midwives and laboratory technicians. The indications for referral to high risk clinics and delivery are shown in Appendix I.

First antenatal attendance: At the first booking the doctor takes a detailed history covering the current and previous pregnancies, medical surgical, obstetrical, family and social histories. A full physical examination including height and weight is carried out. The patient's haemoglobin level is estimated, urine is tested for albumin and sugar, blood group and Rh type are determined, and the serological test for syphilis is done. All the findings are entered into the antenatal card (see attached). A plan for her antenatal care and delivery is made.

Subsequent antenatal visits: Provided the pregnancy continues without complications, the patient is seen monthly till the 28th week, then fortnightly till the 36th week. There after she is seen weekly till delivery. During each visit the patient's general condition and foetal wellbeing are reviewed. At each

visit, the weight is taken. The haemoglobin is estimated at least three times throughout pregnancy. Urine is tested for albumin. If the indication for referral has been successfully managed. the patient is referred back to her original clinic. At each visit all patients receive the following prophylactic drugs:-

Tablets Ferrous sulphate 200mg twice daily

Tablets Folic acid 5mg once daily, and

Tablets chloroquine 400mg weekly.

As a prophylaxis against neonatal tetanus, the mother receives injections of tetanus toxoid at 28, 32 and 36 weeks of gestation. The following investigations can be done in pregnancy only if necessary:-

Radiological studies for foetal maturity, X-ray pelvimetry, Placentography, and Serological determination of ant-D antibodies.

Antenatal visits: For the period of 1st July, 1979 to 30th June, 1980, there were a total of 23481 antenatal attendencies, out of which 1163 were first visits, and 22318 were re-visits.

B. ANTENATAL ADMISSIONS:

The patients with complications in pregnancy requiring admission are admitted to the antenatal wards 38 or 39. The main indications for admissions are shown in Appendix I.

Extra investigations that can be carried out to the admitted patients include sternal puncture (in patients with chronic anaemia) and amniocentecis. When the patient reaches term a decision has already been made on:

i) anticipated mode of delivery

ii) the place of delivery.

The patient is advised accordingly, and the particulars are indicated at the top of the first page of the antenatal card (see antenatal card).

C. INTRAPARTUM CARE:

Normal deliveries are conducted at Ocean Road Hospital. Indications for delivery at Muhimbili Medical Centre are shown in Appendix I.

The patient is received by a nurse midwife in the admission room of ward 34. The midwife notes down the history of onset and progress of labour and does the preliminary physical examination. She records the patients' general condition, the fundal height, the foetal lie, position, presentation and the foetal heart rate. She also observes the strength duration and frequency of uterine contractions. She tests the urine for albumin and acetone.

In the labour ward, the doctor reviews the history and undertakes a detailed examination of the patient. He/she does the initial vaginal examination, to determine the state of the cervix, presentation and membranes. The doctor also examines the size and shape of the bony cage of the pelvis. He eventually plans the management of labour.

The first stage of labour: The patient's general condition, foetal wellbeing and progress of labour are monitored by the doctors and midwives intermittently. The foetal heart rate and uterine contractions are checked clinically and recorded one hourly. The patient's pulse rate and, blood pressure are also monitored hourly. Every after four hours the patient's temperature is checked, the urine is tested for albumin and acetone; a vaginal examination is done to assess the progress of labour in form of cervical dilatation and foetal discent.

The Partogram: When cervical dilatation has reached 3cm. "Alert" and "Action" lines are drawn (at 3 hours and 7 hours

respectively) on the Partogram. It is a modification of Philpott's and Friedman's partogram. All subsequent cervical dilatations and levels of descent of the presenting part are charted on it. If cervical dilatation crosses the "Alert" line at any level, it indicates arrest of progress of labour. Should the "Action" line be crossed, it calls for an immediate action to facilitate the delivery of the baby.

If the patient shows any evidence of severe pain, apprehension, or anxiety during the early stage of labour she is given a sedative analgesic e.g. Pethilorphan 100mg intramuscularly. Inhalation anaesthesia is not used routinely. As the patient enters the second stage of labour, final arrangements for delivery are made.

Second stage of abour: At this sate of labour, the character of the contractions change. They become more powerful and expulsive in nature. The patient may feel the desire to move her bowel. The cervix is fully dilated. She is placed in the modified dorsal position. She is then instructed to take a deep breath and "bear down" strongly and relax between contractions. As the presenting part destends; the perineum is supported. An episiotomy, if indicated, is done after infiltrating the perineum with local anaesthesia.

Once the head is born, the eyes, nostrils and mouth are cleaned and wiped with a sterile gauze. The head is held and the baby is gently delivered. The cord is cut between two clamps.

The third stage of labour: Immediately after the birth of the trunk, the patient is given injection symtometrine intramuscularly. An alternative is an intramuscular or intravenous injection of ergometrine 0.25mg. The placenta is then delivered by a controlled

cord traction. The placenta and membranes are checked for completeness and any abnormalities. The placenta weight and approximate blood loss are recorded in the labour record chart (see attached).

D. POSTPARTUM CARE:

The Infant:

As soon as the newborn baby is born resuscitation of the baby is done. In the labour ward there is a trolley for resuscitation of the newborn. This consists of infant laryngoscope, plastic endotracheal tubes, suction tubes, mask, rubber bag, oxygen, nalorphine, adrenalline, 25% glucose, and sodium bicarbonate. After resuscitation the state of the baby is described by using an apgar score system (see Appendix II). This scoring is done at 1 minute and if necessary at 5 minutes. The infant is examined for any congenital or birth anomalies. It is then weighed and handed over to the mother. The infant is only sent to the neonatal ward if its general condition is poor or if the mother is not able to stay with the baby, due, for instance, to operative delivery.

The mother:

The birth canal is inspected for any tears or lacerations. Any episiotomy is repaired immediately following delivery. In order to ensure good involution, the uterus is squeezed to expel any clots. A post delivery blood pressure is recorded. The mother is then transferred to an adjacent postnatal ward for bed rest and observation. She is observed there for 24 hours.

The patients who have had uncomplicated delivery are sent to Ocean Road Hospital and admitted into the postnatal wards there. Those who have had complicated deliveries, are observed in the

Muhimbili postnatal wards. After another 24 hours provided there are no maternal or infant problems the baby is vaccinated against tuberculosis, and the mother and baby are discharged.

E. POSTNATAL CARE:

All patients who have had normal deliveries attend the nearest Maternal and Child Health Clinics after 6 weeks. Those who have had complicated deliveries are instructed to attend Muhimbili postnatal clinic. At the clinic, the mothers general condition, uterine involution and milk secretion are checked. The haemoglobin level is estimated. The mother is given a talk on family planning. The infant is checked for milestones and any abnormalities.

F. OPERATIONS:

(a) Caesarean section:

The operation is performed both as an elective procedure and as an emergency operation.

(i) Pre-operative preparations:

The patients for elective caesarean section operation are prepared like any abdominal gynaecological operation. Emergency Caesarean sections are done in those patients whose anticipated vaginal delivery fails.

During the period of trial of labour, the patient takes nothing orally. She is kept on intravenous drip. The abdomen is shaved and cleaned and her blood is taken for cross-matching. She is given 15 - 30mls of magnesium trisilicate orally to reduce the irritation by gastric juice in case of accidental inhalation. Should a decision to operate be made, the patient is already prepared. A signed consent is obtained. A Nasogastric suction is

done to those with a history of oral intake within 4 hours.

(ii) Anaesthesia for Caesarean section:

Premedication is done, giving Atropine 0.6mg intravenously. Induction of anaesthesia is as described for gynaecological operations.

Maintainance: This is achieved by using oxygen and nitrous oxide until delivery of the baby and repair of the first layer of myometrium. Ether is then added into the system. From then onwards the procedure is the same as described for gynaecological operations.

Procedure: The abdomen is usually opened through the lower middle incision, as described for gynaecological operations. Each side of the uterus is packed using wet warm abdominal packs. The loose vesico-uterine peritoneal fold is identified, picked up and incised transversely. The bladder is then stripped downwards from a cleavage by a gauzed finger or swab on a holder. It is then retracted with a broad retractor Doyen's or De Lee's. With a sharp knife the surgeon makes a transverse lower uterine segment incision scoring the myometrium throughout the entire length but deeper to the amniotic membrane at the centre. The incision is made bigger by a curved scissors. The right hand is then inserted into the uterus with the palm facing upwards. The presenting part is disengaged, and with the help of fundal pressure brought out through the incision. The nostrils, mouth and eyes are cleaned with a dry gauze and the baby is extracted. Extraction of the foetal head using obstetric forceps is not practised routinely. The cord is excized between two clamps and the baby is handed over to the midwife for resuscitation. The placenta is detached

manually. Injection of ergometrine 0.25mg is given intravenously. The cut edges of the myometrium are held with Green-Armytage clamps. The patency of the cervix is reaffirmed before closing the incision wound in two layers using No. 1 chromic catgut. The abdominal packs are removed. The tubes ovaries and the whole peritoneal cavity are inspected before the abdomen is closed in layers as described in gynaecological operative procedures.

Post-operative care: This is carried out as in Gynaecological operations described earlier. Sedation is given when necessary. Controlled input/output is adhered to until the patient can take orally. Blood is given almost routinely. Prophylactic antibiotics are given routinely to all emergency cases, selectively following elective Caesarean section. Early ambulation is encouraged.

MORTALITY RATES:

These are for the period 1979/80:

Total number of births = 32263

Number of still births = 906
Number of first week Neonatal deaths = 437
Total perinatal deaths = 1343

Total maternal deaths = 60

The perinatal mortality rate is 42.9/1000 births

The Maternal mortality rate is 1.9/1000 deliveries.

SOME COMMON OBSTETRIC AND GYNAECOLOGICAL PROCEDURES:

A. VAGINAL EXAMINATION:

This is done early in pregnancy at the first booking to exclude abnormalities of the vulva, vagina, the lower genital tract, and if there are any pelvic tumours. After 36 weeks of gestation it is done in the primigravida to determine the pelvic

capacity and rule out possible cephalopelvic disproportion. In labour vaginal examination is performed on admission once there are signs of labour. This is done to determine the position, the condition of the cervix and membranes. There after vaginal examination is done 4 hourly to determine the progress of labour. Vaginal examination is not done in the labour ward in presence of antepartum haemorrhage suggestive of placenta praevia.

The procedure of vaginal examination:

The examining doctor scrubs and puts on sterile gloves. The patient is informed of the procedure. She is then placed in a modified dorsal position or lithotomy position. The vulva is inspected for any evidence of abnormalities. The right hand is used to pick a swab soaked in savlon solution. The swab is then transferred to the left hand without the two hands touching each other. Using the swab on the left hand the left side of the vulva is cleaned by a single sweep from above downwards to the Fourchette. The same procedure is repeated for the right side. The left index finger and thumb are used to separate the labia. With a soaked swab on the right hand, the introitus is swabbed again by a single stroke, from the urethral meatus downwards. While the left thumb and index finger still separate the labia, the right index and middle finger are soaked in an obstetric hibitane cream and gently introduced into the vagina. The features of the vaginal mucosa, cervix, fornices and adnexae are noted.

Assessment of the bony pelvis:

The fingers are introduced deeper to the direction of the sacral promontary. The distance of the diagonal conjugate is estimated. Moving the fingers downwards the sacral curve is

determined. The prominence of the ischial spines is also noted. The fingers are then withdrawn and used to measure the subpubic angle by the easyness in accommodating the two fingers. The intertubercular distance is measured by the number of knuckles that can be accommodated between the two ischial tuberosities.

B. CATHETERIZATION OF THE BLADDER:

This procedure is done before all gynaecological procedures. The patient is placed in the modified dorsal or lithotomy position. The surgeon or his assistant cleans the vulva and perineum aseptically as described in vaginal examination above. The left index finger and thumb are used to separate the labia minora. The exposed urethral meatus is swabbed with a gauze soaked in chlorhexidine solution. A metal cather is dipped into Hibitane obstetric cream and carefully introduced into the bladder. With a little suprapubic pressure emptying of the bladder is achieved. For abdominal or major operations an indwelling catheter is used.

C. URINE TESTING FOR:

1. Gycosuria:

Clinistix reagent strips are used. This is a useful quick test for glucose. The impregnated part is dipped into freshly collected urine. It is then observed for one minute and the presence of sugar is indicated by the colour changing to blue. The test does not indicate the amount of glucose. It is therefore used as a screening procedure. The boiling method and blood sugar should be used as confirmatory tests if the clinistix is positive. The clinistix are impregnated with clucose oxidase, peroxidases and orthotolidine. In the presence of glucose oxidase, glucose is converted to gluconic acid and hydrogen peroxide. In the presence of peroxidase, hydrogen peroxide converts orthotolidine to the

blue oxidized form hence the blue colour.

2. Proteinuria:

This is done by using albustix reagent strips. The impregnated part on the reagent strip is made of cellulose with Tetrabromepherol buffered to an acid PH. Int the presence of protein the test area turns green. The colour change is compaired to the scale on the bottle containing the strips. The amount of protein in the urine is expressed in mg of protein per 100mls of urine as follows:

Trace = 5 - 20mg/100mls

1+ = 30mg/100mls

2+ = 100mg /100mls

3+ = 300mg/100mls

4+ = 1000mg/100mls.

It is a quick test and therefore suitable for handling the many antenatal and preoperative patients.

D. EPISIOTOMY:

Indications:

One of the procedures used for preventing childbirth injuries is the episiotomy. It is done to facilitate the delivery of the delicate foetal head, and as a clean incision;substitute for a rugged tear. It is thus performed in:

i) Most primigravidae

ii) Any resistant non-yielding perineum

iii) Instrumental deliveries, and,

iv) Premature deliveries.

PROCEDURE:

The most commonly used is "J" shaped or medialateral incision. During crowning and before the perineum is excessively stretched

5 to 10ml of 1% lignocaine is injected at the intended incision site. The incision is made when the presenting part bulges the perineum. In medio-lateral episiotomy, the incision starts from the midline of the posterior fourchette, proceeds towards the ischial tuberosity. The "J" shaped incision is done best with a curved scissors. The perineum is incised in the midline for 2 - 3cm from the anterior and margin. The incision is then turned outwardly. The structures cut include the vaginal mucosa, the intercolumnar fascia, urogenital septum, fibres of levator ani, and the skin. The repair is done using 0 or 00 chromic catgut in 3 layers. The vaginal mucosa is repaired first, starting with the apex of the incision towards the fourchette. This layer is repaired using continuous stitches. The perineal muscles and skin are repaired by interrupted stitches.

APPENDIX I:

INDICATIONS FOR REFERRAL OF ANTENATAL PATIENTS TO SPECIALIST CLINICS AND/OR DELIVERY AT THE MUHIMBILI MEDICAL CENTRE:

A. PAST OBSTETRIC HISTORY:

1. Previous caesarean section or ruptured uterus
2. Delivery with a vacuum extractor
3. Delivery with obstetric forceps
4. Delivery with symphysiotomy
5. Manual removal of retained placenta
6. Postpartum bleeding
7. Third degree tear of the perineum
8. Three or more consecutive abortions or premature deliveries
9. Neonatal deaths
10. Stillbirth
11. Gravida 8 and above

B. PERSONAL CHARACTERISTICS OF THE WOMAN:

1. Age 35 years or above regardless of parity.

C. PAST GYNAECOLOGICAL OPERATIONS:

1. Repair of vaginal fistula
2. Repair of genital prolapse
3. Repair of third degree perineal tear
4. Myomectomy

D. PRIMIGRAVIDA:

1. Height 145 centimetres or less
2. Age under 16 years or over 30 years
3. Suspected disproportion regardless of age and height
4. Deformities of spine, pelvis or lower limbs

E. MATERNAL DISEASE:

1. EPH Gestosis and Eclampsia
2. Blood pressure 140/90mmHg or above
3. Proteinuria two pluses or more on two consecutive antenatal visits
4. Chronic kidney disease
5. Haemoglobin level 50% or below
6. Diseases of heart and lungs
7. Diabetes mellitus
8. Uterine fibroids and other abdominal lumbs
9. Positive serological tests for syphylis

F. COMPLICATIONS ARISING DURING PREGNANCY:

1. Multiple pregnancy
2. Breech and other malpresentations
3. Polyhydramnios
4. Antepartum bleeding
5. Intrauterine foetal growth retardation
6. Pregnancy prolonged beyond 41 weeks
7. Intrauterine foetal death
8. Rh negative

G. COMPLICATIONS ARISING DURING LABOUR

1. Foetal distress
2. Poor progress of labour
3. Intrauterine foetal death
4. Premature labour (estimated gestational age less than 35 weeks)
5. Other complications which may require surgical managemen
6. Labour not established 24 hours after rupture of membranes
7. Pyrexia during labour, (temperature 38°C or higher)

APPENDIX II:

EVALUATION OF THE NEW BORN INFANT METHOD OF SCORING:

SIGN	0	1	2
Heart rate	abscent	slow (below 100)	over 100
Respiratory effort	abscent	slow irregular	good crying
Muscletone	limp	some flexion of extrimities	active motion
Response to cather in Nostril	no response	grimace	cough or sneeze
Colour	blue pale	body pink extrimities blue	completely pink

1. A CASE OF CERVICAL INCOMPETENCE TREATED BY MCDONALD SUTURE.

Name: A.S. Age: 22 years Tribe: Mngindo

Religion: Muslim Reg. No: 13431

Date of admission: 15th April, 1982

Date of discharge: 24th April, 1982

SUMMARY:

Mrs. A.S. a Gravida 7 Para 2 + 4 was referred from a peripheral clinic at 20 weeks of gestation with a history of four consecutive abortions. She was found to have cervical incompetence. A McDonald suture was applied at 20 weeks. Two days later the patient went into spontaneous labour and delivered a 0.5kg female baby. The intrapartum and puerperal periods were uneventful.

PART II: OBSTETRIC SECTION.

ANTENATAL CARE:

She booked on 15th April, 1982 at Amaallabhai clinic. Her gestation was 20 weeks. Her last normal menstrual period had started on 29th November, 1981. Her estimated date of confinement was 6th September, 1982. She had no complaints at booking. She was referred because of her bad obstetric performance.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

This was her seventh pregnancy and had two living children.

1. 1st Pregnancy was in 1970: She ended with an abortion at 3 months of gestation. She had an evacuation done at Muhimbili Medical Centre.
2. 2nd Pregnancy was in 1971: 5 months and no evacuation was done.

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Mrs. A.S. a Gravida 7 Para 2 + 4 was referred from a peripheral clinic at 20 weeks of gestation with a history of four consecutive abortions. She was found to have cervical incompetence. A McDonald suture was applied at 20 weeks. Two days later the patient went into spontaneous labour and delivered a 3.5Kg female baby. The intrapartum and puerperal periods were uneventful.

ANTENATAL CARE:

She booked on 15th April, 1982 at Amtullabhai clinic. Her gestation was 20 weeks. Her last normal menstrual period had started on 29th November, 1981. Her estimated date of confinement was 6th September, 1982. She had no complaints at booking. She was referred because of her bad obstetric performance.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

This was her seventh pregnancy and had two living children.

1. 1st Pregnancy was in 1970: She ended with an abortion at 3 months of gestation. She had an evacuation done at Muhimbili Medical Centre.
2. 2nd pregnancy was in 1971: 5 months and no evacuation was done.

3. 3rd pregnancy was in 1972: She had an abortion at 4 months and had an evacuation done at Muhimbili Medical Centre.

4. 4th pregnancy was in 1973: She had a Shirodkar stitch applied when she was 8 weeks. The stitch had to be removed at 24 weeks due to labour pains. This was followed by expulsion of a live foetus 6 hours later.

5. 5th pregnancy was in 1975: A Shirodkar stitch had been applied when she was 8 weeks. The stitch was removed at term and she delivered a normal male baby. She could not remember the birth weight. The child is alive and well.

6. 6th pregnancy which was in 1977 - she had a Shirodkar stitch applied at 12 weeks of gestation. She had a full term, normal delivery of a male baby one day after removal of the stitch at term. She could not remember the birth weight of this baby. The child is alive and well.

All the abortions were preceded by a watery discharge from the vagina followed by expulsion of a foetus. All were not painful except the fourth abortion. All were single babies. She could not remember whether they were normal foetuses because all the disposal procedures were handled by her elders. She had had no fever or rashes before these abortions occured. There had been no physical trauma prior to those abortions, and she had had no diarrhoeal disease. She had had neither cardiac, renal, hypertensive disease nor prolonged debilitating disease prior to these abortions.

The two deliveries were both normal. The duration of labour was normal, and she had no postpartum problems. She had attended the antenatal clinic in all her pregnancies.

Her menarche was at 15 years. Her menses lasted 3 - 4 days every 29 days and were regular with a normal flow. She had neither dysmenorrhoea nor dyspariunea. She had no inter-menstrual bleeding. She had no preceeding menorrhagia. She had never been on any contraceptives. She had never suffered from any vulval ulcers.

PAST MEDICAL HISTORY:

This was her 7th admission. She had four admissions due to abortions, and two admissions for application of a Shirodkar stitch. She had had no other operations. She had not suffered from any serious illness. She had not been in contact with anybody suffering from pulmonary tuberculosis.

SOCIAL AND FAMILY HISTORY:

No body in the family had suffered from pulmonary tuberculosis, cardiac disease, hypertensive disease or diabetes mellitus. She was a housewife staying with her husband at Kijitonyama, Dar es Salaam. She was a class seven leaver. The husband was a businessman in town.

PHYSICAL EXAMINATION:

Then patient was well nourished, not pale and was not jaundiced. The teeth, mouth and gums were normal. She had neither thyroid enlargement nor cervical lymphadenopathy. There was no pitting oedema of the lower limbs and the sacrum. Her height was 154cm and she weighed 62 Kg. The breasts and nipples were well developed and looked healthy. There were no breast lumps.

CARDIOVASCULAR SYSTEM:

The pulse rate was 82 per minute, regular and of normal volume. The blood pressure was 110/70 mm of mercury. The

jugular venous pressure was not raised. There was no cardiomegally. The heart sound I and II were normal, and there were no murmurs.

RESPIRATORY SYSTEM:

She was not dyspnoiec. Her respiratory rate was 22 per minute and regular. The chest cage was symetrical, and the respiratory movements were equal bilaterally. There were no crepitations over the lung fields, and the air entry was good.

ABDOMINAL EXAMINATION:

The abdomen was evenly enlarged. There were no surgical scars. The liver spleen and both kidneys were not palpable. Both renal angles were non-tender. The fundal height was equivalent to 20 weeks, and was corresponding with the gestational age by dates.

VAGINAL EXAMINATION:

The vulva and the vagina were normal and there was no abnormal vaginal discharge. There was no vaginal bleeding. The cervix looked healthy and parous, and the os was 2cm open. There were no membranes bulging through the cervical canal. The uterus was bulky with a 20 weeks size.

DIAGNOSIS: Cervical incompetence.

INVESTIGATIONS:

1. Blood - Haemoglobin - 10.2G/dl.
   - Group A Rh (D) positive
   - Blood urea 12 mmol/dl, creatinine 0.8 mmol/dl.
   - VDRL - Negative
   - Blood slide for malaria parasites was negative.
2. Urine: - No albumin, no sugar, no acetone.
   - No casts in the sedment.
   - Culture yielded no growth.

3. Fasting blood sugar was 60mg%, and the glucose tolerance test was negative.

4. Endocervical swab - showed no organisms.

THE PLAN OF MANAGEMENT:

In view of the nature of abortions, the history of two successful Shirodkar stitches and the physical examination, the patient was scheduled for cervical cerclage by McDonald's method.

17/4/1982 at 9.00 a.m McDonald Suture applied.

PREMEDICATION: - Pethidine 100mg intramuscularly.

- Atropine 0.5mg intramuscularly

ANAESTHESIA: General anaesthesia was used. Thiopentone sodium 200mg intravenously was used to induce general anaesthesia. Scoline was used for muscle relaxation. Nitrous oxide, oxygen and ether were used for maintainance of general anaesthesia.

PROCEDURE: The patient was put in lithotomy position. The perineum was cleansed with hibitane solution and the vagina swabbed. The perineum, lower abdomen and lower limbs were draped with a sterile towel. Three hundred millilitres of urine were removed from the bladder. Vaginal examination showed that the vulva and vagina were normal. The cervix was short and the internal os could easily allow the index finger and the membranes were felt but were not bulging. Then an Auvards speculum was introduced into the vagina so that the cervix was clearly visible. The anterior lip of cervix was grasped with a non-serrated tissue forceps and gently pulled forwards. Using No. 1 Nylon suture on an eyeless needle, four bites (at 12, 4, 6 and 10 O'clock positions) were taken on the outside of the cervix at the level of the internal os. The two ends were tied posteriorly; and tightened just enough to

provide a resistance to the passage of a number 6 Hegars dilator, There was very slight bleeding during and after operation.

POST-OPERATIVE PERIOD:

1. **General observations:**

   a) Total bed rest for one week

   b) Blood pressure, pulse and respiratory rates were charted every hour.

DRUGS: (a) Diazepam 10mg intramuscular was given every 8 hours for 24 hours.

(b) Bupherine hydrochloride (Dilatol) 40mg diluted into 500mls of 5% dextrose at 40 drops per minute for 48 hours. This was followed by Dilatol tablets 5mg three times a day for five days.

PROGRESS:

The patient did well and was observed for one week before she was discharged on 24/4/1982 with the following instructions:

a) She was to avoid straineous work at home.

b) She was to abstain from coitus throughout this pregnancy.

c) She was instructed to report to hospital quickly whenever she started having uterine contractions, vaginal bleeding or leakage of liquor amni.

d) She was under close supervision at the antenatal clinic, and was to be seen every two weeks up to 36 weeks, then weekly, thereafter. Each time a speculum examination was done. The suture was planned for removed at 38 weeks which was on 22/8/1982.

e) She was put on ferrous sulphate 200mg twice daily and folic acid 5mg once a day.

SUBSEQUENT ANTENATAL VISITS:

She paid eight subsequent antenatal visits. In all these visits her weight was increasing, the fundus was growing and foetal movements were felt. The foetal heart was heard, The blood pressure, pulse rate and haemoglobin remained normal. She had no vaginal bleeding or discharge, and there were no labour pains. The suture was checked and found in position during all these visits.

REMOVAL OF MCDONALD SUTURE ON 22/8/1982 at 8.00 a.m:

At 38 weeks of pregnancy the patient was admitted from home into the labour ward. She was told about the procedure of removing the suture. She was then placed on lithotomy position. The vulva and the vagina were cleaned with hibitane antiseptic solution and the patient was draped. A bivalve speculum was then introduced into the vagina. The knot of the nylon thread was identified. One of the ends of the nylon thread was held with a forceps, and the suture was cut on one side of the knot. Then the thread was easily pulled off the cervix. There was no vaginal bleeding. The patient was then taken to the antenatal ward for resting.

On 24th August, 1982, the second hospitalization day, the patient was re-admitted into the labour ward because she was in labour and was draining liquor. On examination she was found to have uterine contractions. Vaginal examination was done under strict aseptic conditions. The cervix was found to be 4cm dilated and 80% effaced. The membranes were reptured, the flow of liquor being controlled with the fingers in the vagina. There was no cord prolapse and no meconium staining. There was vernix caseosa in the amniotic fluid. The pelvis was adequate and the position was left accipital anterior. She was allowed

to continue with labour.

The uterine contractions, descent of the presenting part and cervical dilatation progressed well. She had uneventful vaginal delivery of a live female baby nine hours later. The second stage of labour lasted 15 minutes. Ergometrine intramuscular injection 0.25mg was given at the end of the second stage of labour. The placenta and membranes were delivered completely by the Brandt-Andrews method three minutes later. There was no perineal laceration. The blood loss was estimated to be 100mls.

During the immediate puerperal period the mother was in a good condition, she was not pale and was afebrile. Her pulse rate was 84/minute, regular and of normal volume. The post delivery blood pressure was 100/70 mm of mercury. The mother and baby were transferred to the postnatal ward where they were observed for 24 hours.

INFANT: She weighed 3.5Kg. with an apgar score of 10. There was no congenital malformation. She had passed urine and meconium by the second day. She received BCG vaccination on 25th August, 1982. The mother and baby were discharged on 26th August, 1982, and were seen at the postnatal clinic six weeks later.

PUERPERIUM: At the postnatal clinic, the mother and the baby were in good general condition. The mother's haemoglobin was normal. The breast and nipples were normal. The baby was breast feeding well. Uterine involution was satisfactory. The patient was advised to report early to the antenatal clinic during the next pregnancy. She was advised to attend the family planning clinic for child spacing.

COMMENT:

Mann estimates that about 20% of mid trimester abortions are due to cervical incompetence. The management of cervical incompetence depends on the history and physical examination. The cervical incompetence may be caused by:

a) Congenital incompetence of the internal os of the cervix

b) Instrumentation of the cervix by dilators e.g. during dilatation and curettage as a diagnostic or therapeutic procedure (this increases ten times the number of mid trimester abortions, and a dilatation of the cervix by 10mm or more is permanent) or criminal abortions.

c) Other operations of the cervix e.g. Duhrssen's incision, cone biopsy and cervical amputation.

d) Cervical tears during labour either due to spontaneous labour or oxytocin during the second stage of labour which are usually associated with postpartum haemorrhage.

In this patient there were no pointers to such aetiological factors.

The typical history of late recurrent, painless relatively quick, mid trimester abortions preceeded by drainage of liquor is rare. The history of one abortion at 12 weeks and three mid trimester abortion at 12 weeks and three mid trimester abortions preceeded drainage of liquor was suggestive of cervical incompetence. Also the patient had had two successful Shirodkar stitches out of three attempts. It is therefore assumed that cerclage corrected the cause of the previous foetal losses.

On examination this patient's cervix was found to be short and petulous and partially effaced with 2.5cm dilatation. However the finding of cervical dilatation of 2 - 3cm without effacement does not necessarily mean cervical incompetence, and

these patients usually pull through to term.

In the non-pregnant patient, the cervix would easily allow Hegar's No. 8 or 9. A histerogram usually shows significant broadening of the upper part of the cervical canal. But the uterine outline as seen through radiography varies considerably from patient to patient, and according to the phase of menstrual cycle, the corpus being distinctly larger and more distensible in the luteal phase, whereas the internal os becomes narrower during that phase. Given all the uncertainities regarding accurate diagnosis of cervical incompetence, it is essential to exclude other causes of recurrent abortions. A congenital uterine abnormality may be suggested by:

a) Dysmenorrhoea, dyspariunea and menorrhagia in a young woman without any physical cause.

b) Past history of foetal wastage after 12 weeks of gestation, incordinate uterine action, unstable lie and postpartum haemorrhage with retention of placenta. Therefore a hysterography may be necessary in between pregnancies.

Furthermore, the common association between cervical incompetence and congenital uterine abnormalities should be remembered, especiall where an abortion occurs despite a Shirodkar stitch in the fourth abortion in this patient.

Thyroid function tests (T3 T4); sex hormone determination, red cell folate and Sabin Fieldman tests are important investigations to rule out other causes of recurrent abortions.

The treatment of cervical incompetence is by cervical cerclage. Some authorities, think this procedure works through interference with uterine polarity by discouraging the internal os and the neighbouring lower segement from "taking up". Others think that, this procedure prevents membrane bulging which initiates uterine

contractions. The methods of cerclage include Shirodkar, McDonald and the various modifications of these. The choice of McDonald suture was made because:

a) It takes less operating time;

b) It causes less trauma to the cervix and therefore associated with less blood loss and less scarring, and

c) It is the common procedure in this centre. The optimum time for performing this procedure is 14 - 16 weeks. This is because:

i) Any faulty ovum will have been expelled by this period;

ii) The conceptus is firmly secured at this time, and

iii) If done later the cervix may have already been dilated enough to allow bulging of membranes, which is associated with higher failure rate.

In this patient cerclage had been done at 8 - 12 weeks which is very unusual.

However if the patient comes late the operation can be done any time before 28 weeks. Before cervical cerclage is performed, as it was done in this patient, it must be ascertained that there is no chorion-amnionitis, vaginal bleeding, ruptured membranes and labour pains. At operation the author observed the following precautions:- used a non-serrated tissue forceps and applied no undue traction to the cervix, the suture knot was put posteriorly thus avoiding irritation of the bladder, the suture was applied tightly to prevent dilatation, but not to obstruct the blood supply to the cervix.

Postoperatively, the hypotensive effects of dilatol were observed using blood pressure and pulse rate. At discharge the patient was told what to observe strictly, and to act promptly in case of any problems. Idealy such patients should be admitted

throughout their pregnancy after cerclage, and the suture checked every week. The indications for the operation are less definitive in the non-pregnant woman because:

a) One might entrap an abnormal embryo wanting to abort by natural selection.

PREMATURE RUPTURE OF MEMBRANES:

EXPECTANT MANAGEMENT: AND INDUCTION AT 37 WEEKS:

Name: K.P. IP.No: 114/82 Age: 32 years

Tribe: Mmakonde Religion: Christian

Address: Mkamba Street - Mgulani, Dar es Salaam

Date of admission: 19 . 4 . 1982

Date of discharge: 24 . 4 . 1982

Readmission: 5 . 5 . 1982

Delivery: 6 . 5 . 1982

Discharged: 8 . 5 . 1982

SUMMARY:

A 32 year old Mmakonde, Gravida 7 Para 6 with all children alive, was admitted at Muhimbili Medical Centre through the casualty. She was referred from Amtullabhai clinic because she had been draining liquor for 6 hours prior to admission. Her gestation was 35 weeks. She was managed conservatively and discharged one week later. After one week the patient was readmitted because she had been draining liquor for the past two days. Her labour was induced and she delivered a healthy 2.4Kg. baby uneventfully.

The management of premature rupture of membranes, and aetiologic factors are discussed.

ANTENATAL PERIOD:

She booked at Amtullabhai clinic on 23rd February, 1982 at 28 weeks of gestation. Her last menstrual period started on 19th July, 1981. Her expected date of confinement was therefore on 26th April, 1982. On her fifth visit she was referred to Muhimbili Medical Centre because she had been draining liquor for the past

6 hours. The onset was sudden, painless and she had no vaginal bleeding. She had no history of trauma or coitus, and, she had felt no fever. She had no dysuria, frequency or urinary incontinence in this pregnancy.

PAST OBSTETRIC AND GYNAECOLOGICAL HISTORY:

This was her 7th pregnancy, with six living children. All were full term spontaneous vaginal deliveries at Ocean Road Hospital. She had no premature rupture of membranes. She had her menarche at 15 years and her menses were normal lasting 4 - 5 days every 29 days. She had not used any contraceptives.

PAST MEDICAL HISTORY:

She had not suffered from any major illness.

FAMILY AND SOCIAL HISTORY:

She was a housewife, staying with her husband at Mkamba Mgulani. There was no family history of diabetes mellitus, hypertension, cardiac disease or pulmonary tuberculosis. She had not had any formal education. The husband was a watchman.

PHYSICAL EXAMINATION:

She was in a good general condition. She was not pale, not jaundiced, afebrile and was not in pain. Her height was 158cm., and she weighed 62Kg.

Cardiovascular system: Her blood pressure was 120/80 mmHg. Her pulse rate was 28/minute, regular and of normal volume. The heart size and sounds were normal.

Respiratory system: She was not dyspnoiec. The chest was symetrical. The lung fields were clear.

ABDOMINAL EXAMINATION:

The liver, spleen and both kidneys were not palpable. Both renal angles were non-tender. The fundal height was 35 weeks

(Dates = 36 weeks). The lie was longitudinal and the presentation was cephalic, the foetal heart rate was 142/minute and regular.

VAGINAL EXAMINATION:

The vulva and vagina looked healthy. There was slight vaginal discharge which was clear and not smelling.

With the aid of a sterile speculum the vagina and cervix were visualized. A clear fluid was seen pooled on the posterior fornix of the vagina. Some of this fluid was issuing from the cervical canal on coughing. Fundal pressure and displacement of the presenting part were unnecessary. There was no cord proplapse. A swab for culture and sensitivity was taken from the endocervix.

DIAGNOSIS: Premature Rupture of Membranes.

INVESTIGATIONS:

Blood - White cell count - there was no leucocytosis
- Haemoglobin 11.2Gm.
- Group O Rh (D) positive
- VDRL - negative

Urine - There was no protein; no sugar; no pus cells

Pus swab - culture yielded no growth.

ORDERS:

1. Bed rest
2. 4 hourly charting of the temperature, foetal heart rate, blood pressure and the pulse rate.
3. Daily checking of the amount, colour and smell of the liquor.
4. Weight and abdominal palpation were done twice weekly
5. The patient was instructed not to douch but keep her body clean.

PROGRESS:

By the third day she had stoped draining. The general condition, temperature, weight and foetal heart rate all remained normal. She was discharged on the 5th hospitalization day (on 24th April, 1982) under the following instructions:-

a) Reduce activity

b) Avoid coitus

c) She had to come to hospital whenever she had another drain or fever or abdominal pain.

The patient was readmitted eleven days later (5th May, 1982) because she had been draining liquor for two days before readmission and she was not in pain.

The patient was in a good general condition, and was afebrile, not pale. She had no labour pains. The cardiovascular and respiratory systems remained normal.

ABDOMINAL EXAMINATION:

The lever, spleen and both kidneys were not palpable. Both renal angles were non-tender. The fundal height was term and the estimated weight of the baby was 2Kgs. The lie was longitudinal and the presentation was cephalic. The foetal heart rate was 144/minute and regular.

VAGINAL EXAMINATION:

Vaginal examination was done aseptically. There was scanty drainage of clear liquor. The pelvis was found to be adequate. There was no cord prolapse. The cervix was ripe. Using a sterile Kocher's forceps, artificial rupture of membranes was done. The liquor was clear, not foul smelling but scanty. An intravenous drip of 5% dextrose was set, and 2.5 i.u of syntocinon

were added to 500mls 5% dextrose. The drip was started at a rate of 10 drops per minute, then inescalating rates. The other procedures for conduct of labour were done.

PROGRESS OF LABOUR:

1st Stage:

Half an hour later the patient was complaining of mild labour pains. She was found to have mild contractions. The foetal heart rate was normal and the head was still unengaged. Vaginal examination was not done. The usual observations in labour i.e. contractions, cervical dilatation, foetal heart rate, and descent were carried out.

Seven hours later the patient was having strong contractions. The foetal heart rate remained normal. The cervix was 8cm. dilated, the head was well applied. There was neither caput, nor moulding.

2nd Stage:

One hour later the patient started having the urge to bear down. The cervix was fully effaced and fully dilated. So she was encouraged to bear down. She delivered a female baby 2.4Kg with an apgar score of 10. There were no congenital anomalies. Ergometrine, 0.5mg, intramascular was given immediately after delivery of the baby.

3rd Stage:

The placenta and membranes were delivered in "toto", five minutes later. The blood loss was 150mls. Labour lasted 8 hours. The mother and the baby remained in the ward. Their temperature remained normal. By the third day lactation was already established. The lochia was normal and the maternal haemoglobin was 10.2G/dl. And both the baby and the mother were discharged on the third day (8th May, 1982). The mother was strongly advised

use contraceptive. She refused tubal ligation but was willing to start other methods of contraception.

COMMENTARY:

Premature rupture of membranes is not uncommon at Muhimbili Medical Centre. In 1979/80, for instance, it was responsible for 1.0% of all antenatal admissions. The incidences quoted in literature varry from centre to centre. This is because of difference in definitions. The general agreement is that this is a sponteneous rupture of membranes before onset of uterine contractions (labour) after 20 - 24 weeks. Before this gestation it is not premature rupture of membranes. The question is how early before labour and at what gestation? Some authors take it as more than 1 hour before labour. But many centres are of the opinion that, there should be rupture of membranes at least more than 12 hours before onset of labour, regardless of the gestational age. The natural history is such that about 80% will go into sponteneous labour within 24 hours. But, the remaining 20%, will not go into labour. When rupture of membranes occurs; both the mother and foetus are in danger, depending on the duration of latent period, the gestational age, the foetal weight, the presentation, the development of chorion amnionitis and, most important the management of the patient.

The various problems include prematurity, cord prolapse and malpresentations - whose incidence can rarely be affected. The incidence of chorion-amnionitis, perinatal morbidity and mortality can be reduced by aseptic techniques (regarding every vagina to be a potential source of chorionamnionitis), prophylactic antibiotics, and prompt delivery by induction or caesarean section.

Infertility has occured after postpartum morbidity. So any febrile illness postpartum must be treated vigorously in such patients. This patient, who was a multiparous woman, fits very well into the picture, because of the common association between premature rupture of membranes with increasing parity and age. Other factors include contracted pelvis, malpresentations, increased intra-amniotic pressure, trauma and inherent membrane defects (defect in tensile strength, congenital or acquired fenestrations). Infections - viral amnionitis, and severe ascorbic acid deficiency. But the commonest group is the "unknown" aetiology.

On physical examination it is safest to regard that the vagina of every woman is a source of intra-uterine infection; thus digital examination is avoided before labour, or minimized in labour. A sterile speculum examination will show whether the discharge is liquor, urine, leucorrhoea or an inflammatory exudate.

Failure to demonstrate liquor from the cervix may either mean the discharge is not from the cervix, or the rupture is from high up in the amniotic sac with sealing (High leak), in which case she can have a second rupture. Also a second rupture can occur if the first resulted from collection of amniotic fluid between the amnion and chorion, through fenestrations. In this case laboratory demonstration of amniotic fluid was not necessary, because there was no doubt about it. The conservative management was chosen because the foetus was less than 2000 Gm. Aggressive management here would have meant prematurity with all the hazards in our preterm unit. All the precautions for expectant management were taken, that's why there was no need for prophylactic antibiotics.

Amongst the patients with infection, leucocytosis may preceed temperature raise. So appearance of fever means the optimum time for delivery has passed. Thus the value of frequent white cell counts. The conservative approach is safe and beneficial.

In our special baby care unit, prematurity bulks the perinatal mortality. Yet in terms of every-day hospital costs it is cheaper for a preterm baby to be nursed in utero, than in a premature unit. Thus the general agreement is that the best place for the foetus to stay is in the uterus, unless the intrauterine environment is hostile to its continued health. The mother with premature rupture of membranes could best be managed by isolation from hospital environment, i.e. keep her at home where she can chart her temperature twice daily, restrict her activity, prohibit douching and coitus. This would not be possible in this patient, who was of low social economic status. The fear was, she might not follow the instructions and come back severely infected. Thus the decision to keep her in hospital until drainage stopped.

SEVERE ANAEMIA IN PREGNANCY:

Name: S.T. Age: 22 years old I.P No: 290739

Tribe: Msukuma Religion: Muslim Address: Mwananyamal Dar es Salaam.

Date of admission: 3.5.1982

Management: Blood transfusion

Discharged; on: 11.7.1982.

SUMMARY:

Mrs. S.T. was a 22 year old, Gravida 3 Para 2 who was referred from a peripheral dispensary due to severe anaemia in pregnancy. She was admitted in Muhimbili Medical Centre through the casualty. Her anaemia was investigated and she was treated with blood transfusion. She was kept in hospital till term, when she had an uneventful vaginal delivery. The aetiology, diagnosis and management of anaemia in pregnancy are discussed.

ANTENATAL CARE:

The patient first booked at Mwananyama dispensary while she was 24 weeks pregnant. The only problem at booking was, she looked mildly pale. At her second antenatal visit, four weeks later she was found to be very pale. Therefore she was referred to Muhimbili Medical Centre on that account.

HISTORY OF PRESENT ILLNESS:

On admission she complained of dizziness, headaches, fever, thumbing of the heart, chest tightness and cough. She had all these symptoms for one week prior to admission. The fever was of low grade and persistant in character. There was no history of rigours. She had experienced no night sweats. She volunteered that of late, she had noticed palor of her palms and nails. She denied any history of yellow coloration of the eyes or urine.

She experienced palpitations, breathlessness on slight exertion and lying flat but not at rest. She had no paroxysmal nocturnal dyspnoea. She could eat well during this pregnancy. She had neither vomiting nor diarrhoea. She was not using any prophylactic haematemics or antimalarials because of nausea and palpitations. She was not on any antiepileptic drugs.

She had bilateral loin pains, frequency and dysuria. She had no urgency or haematuria. She had no vaginal discharge or bleeding in this pregnancy. She had noticed swelling of both her lower limbs, but no joint, or bone pains.

PAST MEDICAL HISTORY: She had not suffered from any severe illnes

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

This was her third pregnancy. She had one living child, as she had a neonatal death of the second born baby. All these deliveries were normal. She had had no problems antenatally. She did not know the age at her menarche but, thought it was within the normal range. Her last normal menstrual period had started in early October, 1981, and the expected date of confinement was in mid July, 1982, and her gestation was 28 weeks by dates. Her menses lasted 5 days every 29 days, and were regular and normal flow. She had never used any contraceptives. She had not suffered from any vulval sores.

FAMILY AND SOCIAL HISTORY:

No female relative of hers had delivered twins. Nobody in the family had suffered from pulmonary tuberculosis, cardiac disease, hypertension or diabetes mellitus. No family member had had an episode of yellow eyes or joint pain and swelling. She had not had any formal education. Her husband was a labourer with a Textile Mill.

PHYSICAL EXAMINATION:

General examination:

She was of good nutritional status, ill looking. She had palor of the mucous membranes of the conjuctiva mouth and gums. The tongue was also pale. There was palor of the nail beds and palms. She was not jaundiced. She was febrile with a temperature of 38°C, and she had bilateral pretibial and sacral oedema. The thyroid gland was not enlarged and there was no cervical lymphadenopathy. The breasts were well developed, non-tender and had no palpable masses. The nipples were normal.

Cardiovascular system: The pulse rate was 104 per minute, regular and of normal volume. The blood pressure was 110/60 mm of mercury. The neck veins were congested. The apex beat was observed at the sixth intercostal space on the anterior axillary line. There was a precordial heave. The first and second heart sounds were heard, and there were no murmurs.

Respiratory system: She was dyspnoiec and tachypnoiec. The respiratory rate was 30 per minute. The chest cage was symetrical, and the chest movements were equal. The percussion note was not dull. There were bilateral wet crepitations on the lung bases but the air entery was good.

ABDOMINAL EXAMINATION:

There was a globular mid and lower abdominal enlargement. The abdominal skin had stria gravidarum. The abdomen was soft and non-tender. The liver was tender, soft and two centimetres below the subcostal margin. The hepatojugular reflex was positive. The spleen was also palpable four centimetres below the subcostal margin. Both renal angles were very tender, but there were no masses. The fundal height was equivalent to 28 weeks of gestation, and the lie was longitudinal with a cephalic

presentation, the foetal heart rate was 146 per minute.

VAGINAL EXAMINATION:

There was no vaginal bleeding or discharge. The vaginal skin was very pale. The cervix looked healthy, parous and was soft in consistency.

DIAGNOSIS: Congestive cardiac failure due to severe anaemia in pregnancy.

INVESTIGATIONS:

1. Blood
   - Haemoglobin 3.7gm%
   - White blood cell count - Total 6,000; Neutrophils 61%, Eusinophils 1%, Lymphocytes 36%, Monocytes 2%.
   - Red blood cell count 4 million
   - Blood film - Anisocytosis, hypochromic polychromasia and microcytosis
   - There were no malaria parasites
   - ESR was 160 mm per hour (west)
   - Reticulocyte count - 1.8%
   - Sickling test - was Positive. Electrophoresis showed AS.
   - Group and crossmatch - A Rh (D) positive
   - Urea = 5.3mg/dl. Creatinine 0.8mg/dl.
   - Electrolytes Na^+ = 134 mmol/dl. K^+ = 3.4 mmol/dl. Cl. = 105 mmols/dl.
   - VDRL - Negative
2. Urine
   - Direct microscopy - Trichomonas Vaginalis
   - Mid stream urine for culture and sensitivity revealed moderate growth of Pseudomonas, sensitive to Gentamycin.
   - No sugar and no protein.

3. Stool - Hookworm ova were seen

4. Chest X-ray - Cardiomegally with vascular prominance.

CONCLUSION:

The patient was suffering from severe anaemia, urinary tract infection and hookworm infection.

TREATMENT:

A. General:

1. The patient was proped up
2. The blood pressure, pulse and respiratory rates were charted half hourly.
3. The temperature and output were charted every 4 hours.
4. Oxygen was given by tent.

B. Drugs:

1. Intramuscular injection of morphia 10 mg was given
2. Tabs Digoxin 0.75 mg orally followed by 0.5 mg orally every 6 hours, and then 0.25 mg once daily for 5 days.
3. Intravenous injection of lasix 80 mg was given to be followed by 40 mg orally every 4 hours, while packed cells were being given.
4. Intravenous injection of aminophylline 250 mg was also given.
5. Metronidazole 200 mg was given orally, three times per day for five days.
6. Bephenium granules 5G was given once every day for two days.
7. Injection of Gentamicin 80 mg was given twice daily for 7 days.

FLUIDS:

1. Four units (2 litres) of packed cells were transfused slowly while the patient was on lasix.

PROGRESS DURING TREATMENT:

The patient was reviewed every four hours for 24 hours. On the second treatment day 5th May, 1982, the patient was reviewed. She looked less ill. The mucous membranes were still pale. She was febrile with a temperature of 37.9°C and was not jaundiced. The neck veins were still a bit congested. The pulse rate was 99/minute, regular and of normal volume. The blood pressure was 120/70 mm of mercury. The liver was 1½ cm below the subcostal margin and was slightly tender. The spleen was 1 cm below the subcostal margin. The heart was still enlarged. The heart sounds were normal. The renal angles were less tender. On the third treatment day on 6th May, 1982, the patient's general condition was good. There was no neck vein congestion. The liver and spleen were not palpable. There was slight right hypochondrial tenderness. The renal angles were non-tender. The fundus was equivalent to 29 - 30 weeks of gestation. The haemoglobin was 8.1 G per dl. A further one litre of blood was transfused. The patient did well and was discharged one week later. The patient was seen at the antenatal clinic four times before she was admitted 8 weeks later. Her haemoglobin had remained between 10 and 11.2 G per dl. She delivered vaginally uneventfully on 10th July, 1982. The infant was a male baby with an apgar score of 10 and he weighed 3.2Kg. The baby and the mother were discharged on 11th July, 1982. The mother was advised to attend family planning clinic. She was also given ferrous sulphate tablets and folic acid.

COMMENT:

Anaemia in pregnancy is defined as a haemoglobin level less than 11.7 G/dl (Lawson, 1975). Anaemia in pregnancy, like in many other developing countries; is a very common problem in Tanzania (Mwanukuzi, Nhonoli, 1972). At Muhimbili Medical Centre in 1979/80, anaemia was responsible for slightly more than 50% of all antenatal admissions. About 70% of pregnant mothers who are anaemic suffer from iron deficiency anaemia. The remainder suffer from anaemia due to either folic acid deficiency or a combination of both folic acid and iron deficiency. This is mainly because of low dietary intake of these substances, and chronic infections. The growing foetus competes for these raw materials, so that an inadequate intake results in maternal anaemia. In absence of effective treatment, the anaemia may lead to cardiac failure and maternal death. The critical level where cardiac failure occurs is 4.5 G% (P.C.V. of 14%).

The diagnosis of early cardiac failure may not be easily made in view of a raised jugular venous pressure or tachycardia, both of which may be present because of the hyperdynamic circulation present in severe anaemia. So the valuable signs are dyspnoea and basal crepitations. This complication is said to occur in about one third of cases with severe anaemia. Many factors favoured the development and exacerbation of anaemia in this patient: - She was of low socio-economic status, which favoured a state of chronic submutrition, and therefore predisposition to anaemia, late attendency to antenatal clinic meant receiving antenatal care late in pregnancy; failure of the patient to take prophylactic ferrous sulphate and folic acid meant failure to supplement her low stores, and; the effect of hookworm infestation became more significant due to low iron stores, and

possibly high hookworm load. Besides all these she had urinary tract infection which has a role in the causation of anaemia. Her sickle cell trait (AS) may possibly explain two of her clinical states:-

a) She had no malaria parasites detected in her blood film. Once a malaria parasite attacks a person with sickle cell trait (AS), the red blood cell sickles, and is phagocytosed together with the malaria parasite in it, hence shortening the life span of malaria parasites.

b) She had urinary tract infection. Whalley, Pritchard and Richards, found a higher incidence of pylonephritis during pregnancy and pueperium in patients with sickle cell trait, compared to normal pregnant females. This may be due to the fact that, the red blood cells in the small renal medullary vessels are adjacent to the hypertonic urine. This induces sickling of the red blood cells in these vessels. This in turn causes ischaemic necrosis and scarring around the kidney tissue - a well known predisposition of urinary tract infection.

The treatment of anaemia depends on the severity, the type of anaemia and the time left before delivery. In this patient who was severely anaemic, the ideal therapy would be exchange transfusion. But this was not done due to lack of equipment. Partial exchange transfusion is less complex (Fullerton and Turner). The packed cells are transfused while simultaneously removing the same volume of blood plus 100 - 200mls from the opposite fermoral vein. The blood obtained from the patient may be centrifuged for 20 minutes at 1200 revolutions per minute, and the resulting

packed cells re-transfused. The needles, syringes and tubings are siliconized and the patient heparinized. Simultaneously a diuretic can be used to reduce the amount of fluid in the body.

In this patient, frusemide was used to reduce body water, and a very slow transfusion of packed cells done. The results of this procedure were good. The grave picture of the effects of severe anaemia in pregnancy identifies it as a major obstetric emergency, that requires immediate and effective treatment if disaster is to be averted. This patient and the foetus would not be saved, had it not been for the early diagnosis (before term) and prompt therapy. But this patient would not have reached this grave stage, if she had; attended the antenatal clinic earlier, taken her iron and folic acid supplements, and had her haemoglobin estimated at booking. She needed family planning to prevent maternal depletion of iron stores.

ELDERLY PRIMIGRAVIDA DELIVERY BY EMERGENCY CAESAREAN SECTION:

Name: H.B. Age: 39 years old I.P. No: 9854/M/82

Tribe: Mnyagatwa Religion: Muslim

Address: Muholo Street, No. 19 Tandale, Dar es Salaam

Date of admission: 4.9.1982

Date of delivery: 4.9.1982

Date of discharge: 13.9.1982.

SUMMARY:

A 39 year old primigravida who was referred from a peripheral clinic with a diagnosis of "Elderly primigravida". She had no problems throughout the antenatal period. She was delivered at term by a lower segment Caesarean section, the indication being foetal distress. She was discharged with a healthy male baby weighing 2.3 Kg.

ANTENATAL CARE:

She first booked on 2nd April, 1982 at Amtullabhai clinic. She was 16 weeks pregnant by then. Her last normal menstrual period started at the end of November, and her estimated date of confinement was early September. She had no complaints at booking.

OBSTETRIC ANF GYNAECOLOGICAL HISTORY:

This was her first pregnancy. She had used no contraceptives. Her menarche was at 13 years, her menses lasted 4 - 5 days, every 29 - 35 days and were of normal flow. She had no intermenstrual bleeding, no dyspareunia or abnormal vaginal discharge. She had regular normal coitus.

PAST MEDICAL HISTORY: She had never suferred from any major illness.

FAMILY AND SOCIAL HISTORY:

Nobody in the family had suferred from pulmonary tuberculosis,

cardiac disease, hypertension, diabetes mellitus or mental illness. There was no family history of infertility or subfertility. She was a housewife, this was her second husband. She had been married to the first husband for twenty years without conception and was divorced. This was her sixth year with this second husband. She was staying with her husband at Tandale. She had not had any formal education. The husband was a mechanic with an oil company in Dar es Salaam.

PHYSICAL EXAMINATION:

General condition:

She looked obese, not pale and not jaundiced. She had neither thyroid enlargement nor cervical lymphadenopathy. Teeth and gums were normal. She had no septic foci in the orophrynx. She had no pitting oedema of the lower limbs and sacral area. Her height was 158.5 cm, and the weight was 85 Kg. The breasts were well developed, there was areolar darkening, and the nipples were normal. There were no breast lumps.

Cardiovascular system: The jugular venous pressure was normal. The pulse was 70 per minute, regular and of normal volume. The blood pressure was 120/80 mm of mercury. The apex beat was at the normal position, there was no cardiomegally. The first and second heart sounds were audible and normal, and there were no murmurs.

Respiratory system: She was not dyspnoiec, the respiratory rate was 20 per minute and regular. The chest cage was symetrical and the respiratory movements were equal bilaterally. There were no crepitations over the lung fields and the air entry was good.

ABDOMINAL EXAMINATION:

The abdomen was evenly enlarged. There were no scars and no stria gravidarum. The abdomen was soft and non-tender. The liver,

spleen and both kidneys were not palpable. Both renal angles were non-tender. The fundal height was equivalent to 16 weeks of gestation corresponding with the gestational age by dates.

VAGINAL EXAMINATION:

The vulva and vagina were normal and there was neither vaginal bleeding nor abnormal vaginal discharge. The cervix looked healthy, multiparous closed, bluish pink in colour.

DIAGNOSIS: Elderly Primigravida.

INVESTIGATIONS:

1. Blood - Group A Rh (D) Positive
   - Haemoglobin 70%
   - Serum for VDRL was negative
2. Urine - There was neither protein nor sugar
3. Stool - No parasites were seen.

MANAGEMENT AT ANTENATAL CLINIC:

1. Prophylactic chloroquine 300 mg weekly
2. Prophylactic folic acid 5 mg daily
3. Prophylactic ferrous sulphate 400 mg daily.

SUBSEQUENT VISITS:

She paid 9 antenatal visits in total; four weekly up to 28 weeks of gestation, then two weekly up to 36 weeks, and weekly thereafter. She had 3 haemoglobin estimations throughout this pregnancy. She had three doses of tetanus toxoid. She had no problems throughout the antenatal period.

At 37 weeks of gestation she had pelvic assessment. The pelvis was found to be adequate for the foetus, and therefore vaginal delivery was anticipated.

LABOUR AND ITS OUTCOME:

The patient was admitted from her home at 5.00 a.m on 4th September, 1982; because of labour pains which had started at 12 midnight (5 hours prior to admission). She had no vaginal bleeding but mucoid vaginal discharge.

PHYSICAL EXAMINATION:

She was an obese woman and was in pain. She was not pale and not dehydrated. She was afebrile and had no pitting oedema of the lower limbs.

Cardiovascular system: The pulse rate was 80/minute, regular and of normal volume. The blood pressure was 120/80 mm of mercury. The heart size was normal. The first and second heart sounds were normal and there were no murmurs.

Respiratory system: The lung fields were clear.

ABDOMINAL EXAMINATION

The abdomen was uniformly enlarged. The fundal height was equivalent to term pregnancy. The lie was longitudinal; the presenting part was cephalic and had engaged. The foetal size was small. The level of descent was four fifth above the brim. The foetal heart rate was 148/minute, regular. The contractions were mild.

VAGINAL EXAMINATION:

The vulva and vagina were normal. There was no vaginal bleeding. There was a mucoid blood stained vaginal discharge. The cervix was soft 20% effaced and 1.5 cm dilated.

The sacral curve was normal. The ischial spines were not prominent and were approximately 11 cm apart. The subpubic angle could accommodate two fingers and the inter-tuberous space was four knuckles.

An artificial rupture of membranes was done and the liquor was clear and there was no cord prolapse.

CONCLUSION:

The pelvis was adequate and there was no immediate foetal jeopardy. Therefore vaginal delivery was expected.

INVESTIGATIONS:

1. Blood - Haemoglobin 10.2 Gm/dl.
2. Urine - No protein sugar or acetone.

The plan was to conduct labour as described for a woman with normal labour. Therefore the observations for normal labour were carried out.

PROGRESS OF LABOUR:

At 10.00 a.m 4 hours later the patient was reviewed. She had dry mouth and she was in pain. The blood pressure was 140/80 mm of mercury with a pulse rate of 100 per minute and of normal volume. The contractions were stronger lasting 20 - 25 seconds occuring every 3 - 4 minutes. The foetal descent was three fifth above the brim. The foetal heart rate was 160/minute and irregular. The cervix was 2.5 cm dilated and 50% effaced. The liquor was stained with thick meconium. The urine had acetone but no protein.

DIAGNOSIS: Acute foetal distress.

PLAN:

The patient was put on the left lateral position, an intravenous drip of 5% dextrose was started and the patient was prepared for Caesarean section as described in the introduction.

The anaesthesia and the technique for Caesarean section were conducted as described in the introduction. A male baby weighing 2.3 Kg with an apgar score of 6 was delivered. He had no congenital abnormalities. The total blood loss was estimated at 500mls.

POST OPERATIVE PERIOD:

1. Immediate post operative period - the uterus was well contracted and the general condition of the mother was good. The blood pressure was 120/80 with a pulse rate of 80 per minute regular and of normal volume.

2. General orders:

   (a) The blood pressure, pulse and respiratory rates were charted every one hour

   (b) The temperature was charted four hourly

   (c) An intake and output chart was also kept.

   All these parameters remained normal.

3. Fluids:

   (a) Dextrose saline was given as an intravenous drip at a rate of 2 litres per 24 hours

   (b) Two pints of blood were transfused making a total of 3 litres of fluid per 24 hours.

4. Drugs:

   (a) Pethidine 100 mg intramuscularly was given every 6 hours for 24 hours.

PUERPERIUM:

The patient did well. The intravenous drip was removed after 72 hours. The haemoglobin was then 10 Gms per dl. So the patient was started on oral ferrous sulphat 200 mg twice daily and folic acid 5 mg once daily. The patient became ambulant on the 3rd post operative day.

On 8th post operative day the wound was checked and found to be clean. The stitches were removed. The mother and the baby were discharged on 13th September, 1982 and they were given an appointment to be seen at the post natal clinic six weeks later. At the post-natal clinic - the mother and the baby were healthy.

The mother was not pale. The scar was well healed. The mother was instructed to report to Muhimbili next time she became pregnant.

COMMENT:

An elderly primigravida is the woman who conceives for the first time at the age of 35 years or above. The incidence of conception decreases with age, while perinatal loss increases. The low fertility, especially if after the age of fourty is probably due to failure of ovulation to take place or failure of the corpus luteum to maintain implantation (waning of ability of corpus luteum). Her dwindling chances of further child birth, therefore, put more of a premium on the present one. Usually they have had long periods of infertility. For instance, this patient had been married for twenty years and divorced on account of infertility. She was then married to a second husband for six years without conception. So she has gone through a childless period for the past 26 years.

An elderly primigravida is likely to succumb to complications which are a result of the aging process e.g. hypertension, uterine fibroids and other tumours, placental insufficiency, triplets, twins and congenital chromosomal abnormalities. All the above factors put these women in the "high risk" group, and therefore need a careful antenatal and intranatal care.

But this patient was not referred for specialist care until she was in labour at term. During her antenatal period she should have been seen more frequently than a normal pregnant woman.

Pelvic assessment was rightly done at 37 weeks. This was a very important step, because there should be no doubt about her

pelvic dimensions as there is no trial of labour in an elderly primigravida. In this case the pelvis was reckoned quite adequate for vaginal delivery. An early foetal monitoring, antenatally, is of utmost importance in these women, because small for gestational age babies are frequent, and one would not let this woman go beyond term. An amniocentecis should have been done to detect any chromosomal abnormalities.

Once the baby is born the age of the mother does not seem to influence the survival of the neonate. Thus the aim should be to deliver the mother by the most expeditious route. However, an advanced age per se is not an indication for an abdominal delivery. This woman was delivered by Caesarean section due to foetal distress and not on account of age. The risk to the neonate may be reduced to the level of the younger obstetric populations with careful antenatal monitoring and active management of pregnancy and labour. This baby would not have been saved were it not for the timely Caesarean section.

DISCORDANT TWINS WITH ANTEPARTUM DEATH OF ONE AND ONE LIVE BIRTH

Name: T.I. Age: 31 years Tribe: Mdoe Religion: Muslim

I.P. No: E/279/M/82 Address: Kinondoni, Dar es Salaam

Date of admission: 9.9.1982

Date of delivery: 20.10.1982

Date of discharge: 22.10.1982

SUMMARY:

A 31 year old Gravida 2 Para 1 was admitted throuth the casualty to the antenatal wards at 28 weeks or gestation. She was referred from a peripheral clinic because she was found to have a fundal height which was bigger than dates.

On examination she was found to have twin pregnancy with polyhdramnios. Confirmation of the findings was done by maternal plain abdominal X-rays. She had a sponteneous vaginal delivery of one macerated still birth, and one live baby at 36 weeks of gestation. The diagnosis and management of twin pregnancy is discussed. The possible aetiological factors of discordant twins are mentioned.

ANTENATAL CARE:

She first booked on 3/6/1982 at Kinondoni clinic. She was 16 weeks by gestation. Her last normal menstrual period had started in mid February probably 14/2/1982, she was not very sure and her estimated date of confinement was therefore around 21/11/82 At booking she complained of having had excessive vomiting in the first three months of her pregnancy. She paid two more visits and on her 4th visit at 28 weeks of gestation she was referred to Muhimbili because she had an abdomen which was bigger than dates together with generalized oedema.

On admission at Muhimbili she complained that her abdomen was bigger than usual. She also experienced excessive foetal movements and weakness. She was by then experiencing slight nausea but no vomiting. She could not afford to move around because of the heavy abdomen and weakness. She had had neither fits no headaches. She had not had any vaginal bleeding in this pregnancy. She had no labour pains. She had no urinary symptoms and she had normal bowel movements. This was her second pregnancy. The first pregnancy, in 1973 ended up with a full term normal delivery at Ocean Road Hospital. The child is alive and well. She could not remember the birth weight of this baby.

GYNAECOLOGICAL HISTORY:

She had regular menses which had commenced at 14 years of age. The menses lasted 5 days every 28 - 30 days and the flow was normal. She had been on oral contraceptives (she could not remember the name) for five years.

PAST MEDICAL HISTORY: She had not had any major illnes in the past.

FAMILY AND SOCIAL HISTORY:

She was a form four leaver working as a cashier with Regional Trading Corporation in Dar es Salaam. She was staying with her husband at Kinondoni. The husband was a technician with Posts and Telecommunication in Dar es Salaam. Nobody in the family had suferred from diabetes, hypertension, cardiac disease or pulmonary tuberculosis. Nobody on the paternal and maternal side had given birth to twins.

PHYSICAL EXAMINATION:

She was healthy looking. She could move and walk with difficulties because of the huge abdomen. She had generalized

oedema. She was not pale, afebrile and had no jaundice. She weighed 60½ Kg. and her height was 162 cm. The teeth and gums were healthy and she had no septic foci in the oralpharynx. The thyroid gland was not enlarged and she had no cervical lymphadenopathy. The breasts and nipples were well developed. Clear fluid could be expressed from the nipples. There were no breast lumps.

Cardiovascular system: Her blood pressure was 110/70 mm of mercury with a pulse rate of 88/minute regular, and of normal volume. The heart size and sounds were normal.

Respiratory system: The chest was symetrical and the lung fields were clear.

ABDOMINAL EXAMINATION:

The abdomen was uniformly distended and pendulus. The liver, spleen and both kidneys were not palpable. Both renal angles were not tender. The fundus was equivalent to 36 weeks of gestation, while the gestational age by dates was 28 weeks. There was excessive amout of amniotic fluid. Multiple foetal parts could be palpated with difficulty due to excessive fluid. Foetal movements were palpable. One of the foetus presented with the head which was very small. The foetal heart rate was 144/min. and regular.

VAGINAL EXAMINATION:

The vulva and vagina were normal. There was no abnormal vaginal discharge. The cervix was healthy and there were no pelvic tumours.

DIAGNOSIS: Twin Pregnancy with Polyhydramnios.

INVESTIGATIONS:

1. Blood - Group O Rh (D) Positive
   - Haemoglobin - 11.0 gm/dl.
   - VDRL - Negative
2. Urine - No protein, no sugar
   - No infection
3. Plain abdominal X-ray - Revealed two foetal shadows Cephalic/Breech of almost equal size.
   - No congenital malformations
   - No subcuteneous fat line
   - No ossification centres.

MEDICATION AND ADVICE:

In view of a combination of multiple pregnancy, and severe polyhydramnios and generalized oedema the patient was admitted into the antenatal ward with the following orders:

1. Bed rest
2. Ferrous sulphate 200 mg three times a day
3. Folic acid 5 mg once daily
4. Chloroquine sulphate two tablets weekly
5. Blood pressure and pulse were charted twice daily
6. The abdomen was palpated and weight taken twice weekly
7. Urine was tested for protein.

The patient's condition in the ward remained normal until at the 35th week of gestation when she started experiencing labour pains and drainage of liquor. Two hours later she was transferred into the labour ward. The pains were now regular and progressive.

PHYSICAL EXAMINATION:

The patient was having labour pains. The contractions could be palpated on the abdomen. The fundal height was about 38 weeks.

The foetal heart was 142/min. and ragular. The membranes had ruptured sponteneously - the amniotic fluid was straw coloured. There was no cord prolapse. The cervix was 4 cm dilated, the breech was presenting. The pelvis was adequate.

CONDUCT OF LABOUR:

The patient was started on the usual observations as for normal labour.

2nd stage:

The patient, on the dorsal position, was encouraged to bear down.

(a) Delivery of the first twin: The vulva and the perineum were cleansed with Chlorohexidine solution (aqueous). The perineum was supported with a pad while the patient bore down. The head descended with ease. A macerated male still birth weighing 2.1 Kg was delivered.

(b) Delivery of the 2nd twin: Soon after delivery of the 1st twin the abdomen was palpated the lie was longitudinal. The fetal heart was 148 and regular. The vulva was again swabbed with chlorohexidine and two fingers were introduced into the vagina. The membranes were felt bulging. The membranes were ruptured using a sterile Kocher's forceps, care being taken not to damage the cord of the second twin. The mother was again encouraged to bear down. The second twin who was presenting with the vertex was born 10 minutes later. She was also a male baby with an apgar score of 8 and weighed 3.1 Kg.

INFANTS.

The firsttwin was a macerated still birth without obvious congenital malformation. The placental vessels could not be traced

very well because of placental distortion accompanying the macerated still birth.

The second twin was normal and the placenta looked normal. A catheter was passed in the oesophagus easily. She had passed urine and meconium by the second day. The baby had BCG vaccination on 21st of October. The baby and the mother were discharged on 22nd October, 1982 and were to be seen at the postnatal clinic six weeks later.

PUERPERIUM:

The baby and the mother were seen at the postnatal clinic. The general condition was good and maintained a good haemoglobin. The breasts and nipples were normal. The baby was breast feeding well. Uterine involution was satisfactory. The patient was advised to register herself to the family planning clinic.

COMMENT:

Twin pregnancy may result from either fertilization of two separate ova (Biovular, dichorionic) or division of one fertilized ovum into two separate embryos (Uniovular, monochorionic).

The incidence at Muhimbili is about 0.8% of all admissions, and 4% of all deliveries. Though the figure quoted in literature is less than 1% of all deliveries, they account for over 12% of all perinatal deaths, mainly through prematurity.

The history of excessive pregnancy symptoms was suggestive of multiple pregnancy in this patient. The family history of multiple pregnancy was lacking in this patient. This is unexpected because such history is usual, and oddly enough on both paternal and maternal side. The findings of a uterus which was larger than dates, multiple foetal parts and polyhydramnios were a further

support of multiple pregnancy. Demonstration of two different foetal heart beats is easier said than done. Furthermore, the foetal heart sounds in this patient were muffled by the excessive amniotic fluid. Hydramnios is more commonly associated with monochorionic twins which was the case in this patient. An X-ray was used to confirm twin pregnancy in this patient. Ultrasound and foetal EKG could be used to confirm multiple pregnancy. These are less aggressive and they eliminate the hazards of irradiation. Ultrasound can miss up to 50% of multiple pregnancy if done early. The advantages of X-rays over the above means are:

a) The number and size (twins, triplets etc.) can be determined easily

b) Congenital skeletal malformations can be seen. This was especially important in this lady who had polyhydramnios.

c) The lie and presentation of the foetuses can be seen clearly and

d) The amount of irradiation is minimal.

Early, diagnosis of multiple pregnancy is very important, because all eventualities in pregnancy labour and delivery can be anticipated. The second twin is, therefore, not delivered as an emergency in an ill prepared labour ward.

Prematurity is the commonest cause of perinatal loss in multiple pregnancy. The question as to why labour occurs early in multiple pregnancy remains unsettled. Two theories have been put forward to explain this phenomenon:

a) An everage uterus does not tolerate a total weight of more than 5450 Gms. Once this weight is reached the patient goes into labour.

b) Earlier delivery may also be due to hormonal inbalance caused by high levels of placental hormones.

Various methods have been tried to prevent premature labour in multiple pregnancy. Intervention by cervical cerclage before labour sets in has been proved useless. Early admission for bed rest is practised by many obstetricians provided the gestation is less than 36 weeks. The value of this in prevention of premature labour has not been established. Little and Friedman found that early admission did not influence the gestation at birth, but influenced the birth weight. The improvement in low birth weight following early bed rest can be attributed to:

a) Relief of pressure to cervix and lower segment which may prevent premature labour;

b) Re-distribution of blood flow to placenta and

c) Better nutrition in hospital.

This baby, though she was 36 weeks by gestation, she weighed 3 Kg. Whether this was due to bed rest or foetus to foetus transfusion is a matter of speculation. The question of premature labour in multiple pregnancy will remain unsettled until we know the cause of premature labour in these patients.

In this patient both twins were males. Their birth weights were descrepant (more than 30%). Twin pairs are considered discordant if the difference in their birth weights exceeds 25% or their difference in biparietal diameter is more than 5%.

The possible causes of discordancy include:- unequal distribution of placental mass between the co-twins; umbilical artery abnormalities e.g. single umbilical artery twin transfusion syndrome and sometimes no definite cause is found. Discordancy which is associated with high rate of antenatal foetal death is usually caused by twin transfusion syndrome. The fact that the foetuses were monochorionic associated with hydramnios and antepartum

foetal death further supports the possibility of twin transfusion syndrome. The possible explanation for this syndrome is that; the majority of monochorionic placenta associated with single ovum twins have vascular anastomosis between the two babies. The size, number and nature of these anastomoses varies, but in some cases they permit considerable transfer of blood from one foetus to another. One twin becomes anaemic, while the other becomes polycythaemic. And polyhdramnios developes in the recepient twin, while oligohydramnios developes in the donor twin which eventually dies. In both these twins there was no anencephally which could explain the polyhydramnios, and at least there was no gastro intestinal anomally in the live baby. However, the anastomosis could not be proved because the other foetus and placenta were macerated. Haematochrit should have been done on the live baby immediately, and a postmortum should have been done on the macerated twin.

MULTIPARITY: RUPTURED UTERUS SUBTOTAL HYSTERECTOMY DONE:

Name: H.R. Age: 29 years ANC No: 4270 Tribe: Mzigua

Address: Tandale, Dar es Salaam Delivery No: 10874

Date of admission: 2.10.1982

Date of operation: 2.10.1982

SUMMARY:

The patient Gravida 6 Para 5 + 0 with three living children booked at 22 weeks of gestation at Tandale clinic. She had paid 7 visits before admission into Muhimbili Hospital on 2nd October, 1982. She had been in labour at home for 14 hours prior to admission. She was found to have uterine rupture. A subtotal, hysterectomy was done after initial resuscitation. Her post operative period was uneventful. She was discharged on the 12th day of hospitalization.

PRESENT OBSTETRIC HISTORY:

The patient, Gravida 6 Para 5 had had no abortions. She had three living children. She booked at Tandale clinic at a gestational age of about 22 weeks. She was not sure of her exact,dates, but her last normal menstrual period had started in late December, 1981 and her expected date of delivery was therefore early October, 1982. She had regular menses. She paid 7 visits all of which were uneventful. Her blood pressure had remained at 110/70 mm Hg. She had noted a severe progressive lower abdominal pain which was persistant. The periodic labour like abdominal pains had ceased. This was accompanied by vaginal bleeding which was bright coloured. She did not think she had blood stained urine. She had not taken any local herbs to augment labour. She had not felt any shearing and tearing sensention or fever, but had dizziness.

PAST OBSTETRIC HISTORY:

1st born: - 1969 a full term vaginal delivery who died suddenly at 3 months of age.

2nd born - was born in 1970, full term normal delivery who died at 4 years of age after having had a fever.

3rd born: - was born in 1973 a full term normal delivery who was living and well.

4th born: - was born in 1977 a full term normal delivery who was living and well.

5th born: - was in 1979 a full term normal delivery.

All her deliveries were at Ocean Road Hospital and she had no antenatal, natal, or postnatal problems. She did not remember the birth weights.

GYNAECOLOGICAL HISTORY:

She had her menarche at 15 years, and her menses were lasting 4 - 5 days every 28 days. The flow was regular and normal. She had neither dysmenorrhoea nor dyspareunia. She had no post coital bleeding. She had never been on any contraceptives.

PAST MEDICAL AND SURGICAL HISTORY:

She had never been operated and had not suffered from any major illness.

SOCIAL AND FAMILY HISTORY:

She was a housewife and had not received any formal education. She was married and was staying with the husband at Tandale. There was no history of hypertension, diabetes mellitus or cardiac disease in the family. Her elder sister had given birth to one set of twins.

PHYSICAL EXAMINATION:

She was not in pain, very calm, not dehydrated, not jaundiced and afebrile. She was moderately anaemic. The mouth, teeth, gums and throat were normal. The thyroid gland was not enlarged.

Cardiovascular system: The blood pressure was 90/60 mm Hg, the pulse rate was 118 per minute, rapid and small in volume. The skin was cold and sweaty. The first and second heart sounds were audible. There were no murmurs, but tachycardia was noted.

Respiratory system: The lung fields were clear.

Breasts: The breasts were normally developed symetrical. There were no breast lumps. The nipples were normal.

ABDOMINAL EXAMINATION:

The abdomen was irregularly enlarged with both flanks bulging, the left flank bulging more than the right. The uterus was very tender and tense, the fundal height was obscure. The fetal parts were easily palpable on the left part of the abdomen. Palpation of the liver, spleen and kidneys, was rendered impossible because of the severe abdominal tenderness and guarding. The fetal heart was not audible. The bowel sounds were audible but distant.

VAGINAL EXAMINATION:

The perineum was soiled with faeces. An admixture of blood and liquor was seen issuing from the vagina. The presenting part was high, and a fetal limb could be felt through a gap in the lower lateral uterine segment.

DIAGNOSIS: Ruptured Uterus.

The patient was planned for emergency laparatomy and the following done:-

A. GENERAL: 1. Blood grouping and crossmatch was done - two units of blood were immediately available.

2. Consent was obtained

3. Abdomen was shaved and cleaned with an antiseptic solution

4. Bladder catheterization - clean urine 250mls was obtained.

5. Nasogastric tube suction was done

B. FLUIDS:

1. A fast intravenous drip was set using a wide bore needle while awaiting blood.

2. Two units of blood were available and started.

C. DRUGS:

1. Morphine injection 10 mg intramuscularly was given

2. Crystalline penicillin 2 m.u intravenously was given every 6 hours for 24 hours, then changed to intramuscular injection of 1.2 m.u of P.P.F for five days.

3. Injection chloramphenicol 500 mg was given intravenously at 6 hourly intervals.

4. Atropine 0.6 mg intramuscularly was given.

On 2nd October, 1982 at 7.00 p.m Subtotal Hysterectomy was done.

OPERATION: Laparatomy subtotal hysterectomy

ANAESTHESIA: General anaesthesia was induced and maintained as described in the introduction.

PROCEDURE:

The abdomen was opened up through a midline subumbilical incision. A 2.9 Kg female baby and placenta were floating in the abdominal cavity. They were delivered through the abdominal incision. About 2 litres of admixture of amniotic fluid, meconium and blood were sucked out of the peritoneal cavity. A swab for culture and sensitivity was taken. The exit of the fetus and placenta was through a ragged oblique rent on the inferolateral side of the uterus, involving the broad ligament, round ligament and the lower uterine segment up to just above the internal os. The uterine

vessels, bladder, vagina and cervix were intact. Both tubes and ovaries were healthy. The ovaries and uterine vessels on the affected side were first identified and secured by ligatures at the level of the tear. Both tubes were then divided and ligated. The lower uterine, peritoneal tear was then extended laterally towards the right side of the broad ligament which was then divided towards the utero-sacral folds. The uterine vessels on the right side were identified and clamped with a Kocker's forceps, close to the cervix. The uterus was then cut across the level of the tear. The vessels were transfixed. All the bleeding points were secured. The raw surface of the stamp was then covered with peritoneum. All blood clots were then removed and the abdomen closed in layers. The infant was a 2.9 Kg. female. She had no caput, no severe moulding and no congenital malformations. She was a fresh still-birth.

Gross examination of the uterus, placenta and umbilical cord was unremarkable. The post operative condition of the patient was quite good. The blood pressure was 100/70 mm Hg., the pulse rate was 100 per minute and of normal volume.

POST OPERATIVE CARE:

A. General:

1. Blood pressure, pulse and respiratory rates were charted every hour for 4 hours then every two hours for 6 hours, then 4 hourly.
2. Indwelling catheter was connected to a closed collecting system.
3. Input and output chart was kept.
4. 4 hourly, temperature chart was recorded.

B. Fluids:

1. Two units of blood were available and transfused.

2. Two litres of dextrose saline were infused.

C. Drugs:

1. Antibiotics were continued

2. Pethidine injection 100 mg intramuscular was given every 6 hours for 24 hours.

The patient made uneventful recovery. Her blood pressure, pulse and temperature remained normal., Her lung fields were clear. She had mild ileus for 48 hours. On the third post operative day, she had passed flatus and her bowel sounds were audible. The intravenous drip was then discontinued and the patient was started on oral fluids, and semi-solid food. The stitches were removed on the 8th post operative day.

On the 12th post operative day, the wound had healed well, and the patient was discharged home to be seen at the gynaecology clinic six weeks later.

At follow up, 6 weeks later, her general condition was good. Her haemoglobin was 10 Gms/dl. She was therefore discharged from the clinic.

COMMENT:

Ruptured uterus is a very common problem. It is serious and often a tragic obstetric emergency which, threatnes the life of the mother and the baby. Uterine bleeding is a leading cause of maternal and foetal mortality.

Rupture of the uterus may occur before or during labour. It may be "occult"; which is usually insidious, painless with minimal bleeding, and the fetus often is not extruded. It may be "true" (complete) rupture, which is usually sudden, explosive and often associated with severe pain, and signs of shock.

Aetiologically, it may be spontaneous, traumatic, or due to scar rupture.

The uterine rupture in this patient was spontaneous and complete, which involved an intact uterus after onset of labour. Ries states that the term "spontaneous" rupture" may be misleading since the uterus does not rupture unless there is a basic cause for uterine wall weakness. A major cause of spontaneous rupture of the uterus is prolonged obstructed labour due to cephalopelvic disproportion or malpresentations.

Cephalopelvic disproportion may occur for the first time in a multiparous woman, due to increasing foetal size with parity (Mtimavalye 1976). Menon proposed that prolonged childhood maternal malnutrition leads to weak musculature, and development of a small pelvis. But judging from the fetal size (2.9Kg) in this patient, cephalopelvic disproportion is unlikely to have been the cause. Malpresentations, a common problem in multiparous women (due to laxity of abdominal muscles) cannot be ruled out in this patient, because, she was first seen with the uterus already ruptured. In addition, a multiparous uterus may have weak muscle fibres and scarring due to previous labour and deliveries. However, by definition, this patient fits in well in the grand multiparity group (para five or more), who rupture their uteri more frequently. So this may confirm the aetiologic importance of high parity. Multiparous women can also rupture their uteri by pushing against undilated cervix or borderline pelvis. In this case, there was no evidence of undue fundal pressure, version or taking local herbs (oxytocics). Considering this case; age was probably not a factor here, since most uterine ruptures occur after 35 years. However, Keifer, Palermae, and Friedman deny any contribution by parity and age. Further, Boulle noted the infrequency of rupture of uterus in grandmultiparous women. The cause of rupture in this lady is a puzzle.

The presentation, often times is atypical and the diagnosis may be missed. Armon, for instance, noted a typical presentation in only 33% of his patients. In this patient the presentation was typical, and therefore posed no problem in the diagnosis. The fact that the catheter specimen of urine was clear indicated that the urinary bladder was not involved.

Investigations like Haemoglobin/haemotochrit (whose fall is deceptively slow anyway), abdominal X-rays and culdocentecis were not done because time could not allow. No attempt was made at vaginal delivery, because shock and haemorrhage would be worsened. Surgical intervention was energetic with a diagnosis action interval of half an hour.

The findings of the rupture on the left lateral wall of the uterus, is in agreement with the observations made by others; (De Lee and Greenhil, Brirger, Donelley) who found that the left lateral wall was more frequently involved than the right lateral wall. Voogd offers the explanation that:- the left ovarian vein enters the femoral vein at right angles. This causes passive venous congestion in the left broad ligament. Dextro rotation of the uterus which occurs in 80% of these cases may accentuate this predisposition.

Of the three courses of management, namely, repair, repair with sterilization, and hysterectomy, the last one was taken because:-

a) It was reckoned faster than repair, in view of the extensive tear and the patient's poor condition, with only one litre of blood available.

b) The patient had no desire of further child bearing.

c) The post operative period after hysterectomy is not necessarily longer than simple repair, and, sometimes, the patient may

need hysterectomy after repair.

d) The procedure was considered safest, for the uterus once it ruptures may as well do so again, considering our limited transport and hospital facilities. Subtotal hysterectomy was done because, the vagina and cervix were not involved, and therefore not the main source of bleeding, and, the patient's condition was so poor that any prolongation of the operation would be dangerous.

The procedure in each case must be individualized. The correct procedure is the one which is shortest, produces least shock, and thus gets the patient off the operating table in the best condition. The corner stone of good management of complete rupture includes early diagnosis, adequate resuscitation, prompt operative intervention and possibly antibiotics. Prevention is by identifying the at risk groups, and careful management of labour and delivery.

ASSISTED BREECH DELIVERY.

Name: Mrs. M.B. Age: 32 years Tribe: Mdigo

Religion: Muslim I.P. No: 0150/M/82

Address: Kigogo, Dar es Salaam Occupation: Housewife

Date of admission: 12.05.1982

Date of delivery: 12.05.1982

Date of discharge: 14.05.1982

SUMMARY:

Mrs. M.B. was a 32 year old Gravida 7 with all children living. She was referred from Ocean Road Hospital at 38 weeks of gestation in labour with a breech presentation. She had been attending Ilala antenatal clinic. Assisted breech delivery was achieved. The management of breech presentation is discussed.

ANTENATAL CARE:

She booked at Ilala dispensary on 2nd March, 1982. Her gestational age by dates was 28 weeks. Her last normal menstrual period had started on 18th August, 1981 and therefore her expected date of confinement was 25th May, 1982. She had no complaints at booking.

PAST OBSTETRIC HISTORY:

This was her 7th pregnancy and had 6 living children. All were normal deliveries, full term at Ocean Road Hospital. She could not remember their birth weights but she thought they were of normal size. She had no problems antenatally, during labour and postnatally.

GYNAECOLOGIC HISTORY:

She did not know the age at her menarch but thought it was within the normal range. Her menses lasted 4 days every 30 days. They were regular and of normal flow. She had no problems before,

after or during menstruation. She had had no vulval ulcers. She had not used any contraceptives.

PAST MEDICAL HISTORY:

She had not suferred from any serious illness.

FAMILY AND SOCIAL HISTORY:

She was the second born in her family. Nobody in the family had suferred from diabetes mellitus, cardiac disease or hypertensive disease. There was no history of twins in her family or the husband's family. She had not been in contact with any known patient with pulmonary tuberculosis. She was a non smoker. She was married, staying with the husband at Kigogo. She had not had any formal education. The husband was a telephone supervisor with Posts and Telecommunication in Dar es Salaam.

PHYSICAL EXAMINATION:

She looked healthy. Her height was 158 cm. and she weighed 74 Kg. She had no oedema. She was not jaundiced, she was not pale and she was afebrile. She had no cervical lymphadenopathy and no thyroid enlargement. The teeth and gums were normal. The breasts were well developed, active and there were no lumps. The nipples were normal.

Respiratory system: The chest was symetrical and the lung fields were clear.

Cardiovascular system: The pulse rate was 84/minute, regular and of normal volume. The blood pressure was 120/80 mm Hg. The heart size and sounds were normal.

ABDOMINAL EXAMINATION:

The abdomen was uniformly distended. There were stria gravidarum on the abdominal skin. The liver, spleen and both kidneys were not enlarged. Both renal angles were non tender

The fundal height was 28 weeks, the lie was longitudinal with the head presenting. The foetal heart rate was 140/min. and regular.

VAGINAL EXAMINATION:

The vulva and vagina were normal. The cervix was closed, parous and looked healthy. The uterus and adnexae were normal.

INVESTIGATIONS:

1. Blood - Haemoglobin was 11.2 G/dl.
   - Blood grouping and crossmatch - O Rh (D) positive
   - VDRL - Nagative
2. Urine - Normal

ADVICE AND TREATMENT:

Because all was well, she was given prophylactic ferrous sulphate, folic acid, chloroquine and the first tetanus toxoid dose. She was advised to attend Ilala clinic four weeks later.

SUBSEQUENT ANTENATAL VISITS:

She paid two more visits. She had no problems until at the 38 weeks when she started having labour pains.

ONSET AND PROGRESS OF LABOUR:

The patient was admitted at Ocean Road Hospital on 12th May, 1982 at around 8.00 a.m . She had complained of labour pains 2 hours before admission. The contractions were frequent occuring once every 10 - 15 minutes. She had neither vaginal bleeding nor draining of liquor.

PHYSICAL EXAMINATION ON ADMISSION:

The patient had a good general condition but she was having labour pains. She was not pale, and afebrile. Her blood pressure was 120/80 mm of mercury, and her pulse rate was 88/min., regular and of normal volume. The respiratory and cardiovascular systems were essentially normal.

ABDOMINAL EXAMINATION:

The abdomen was uniformly enlarged up to the level of the xiphisternum. The uterine size was 38 weeks. The lie was longitudinal with an irregular fixed lower pole. The head was ballotable at the fundus. Uterine contraction could be felt once every 3 - 5 minutes. The foetal heart rate was 144/min., regular, best heard on the left side just above the umbilicus. The foetus was medium sized.

VAGINAL EXAMINATION:

The vulva and vagina were normal. The cervix was soft, fully effaced and 6 cm. dilated, The membranes were intact. The presenting part (breech) was 2 cm. above the ischial spines. The pelvis was adequate. Artificial rupture of membranes was not done.

DIAGNOSIS: Complete breech presentation.

In view of the above diagnosis the patient was transferred from Ocean Road Hospital to Muhimbili labour ward for further management of labour. In the labour ward the patient was re-examined one hour after the first examination. The findings were the same, the cervix was 6 cm. dilated. The foetal heart rate normal.

The patient was advised to rest in bed in order to delay rupture of membranes and therefore cord prolapse. Monitoring was done as in care of normal labour. She remained in good condition. The contractions, dilatation and descent progressed well.

At 11.15 a.m (2¼ hours after the second vaginal examination) the foetal membranes ruptured spontaneously. The amniotic fluid was meconium stained. An immediate vaginal examination was done to rule out cord prolapse. There was no cord prolapse. The cervix was fully dilated. The breech was below the ischial spines, left sacral anterior position. Five minutes later the posterior buttock

was distending the perineum.

PREPARATIONS FOR DELIVERY:

The delivery tray was prepared. The surgeon scrubbed and wore sterile rubber gloves. The patient was placed on lithotomy position with the patients buttocks at the edge of the obstetric couch. The vulva, perineum and abdomen were drapped.

In anticipation of an episiotomy, the perineum was infiltrated with lignocaine 1%. An episiotomy was done from the fourchette to the left side, the pair of scissors being placed between the index and middle fingers which were in the vagina pressing the perineum away from the presenting part.

ASSISTED BREECH DELIVERY:

The mother was encourated to bear down. The breech cantinued to descend.

The baby was touched for the first time when the umbilicus was born. A loop of cord was pulled down. The back was facing directly upwards. During this time the midwife's hand was on the fundus of the uterus, not only to palpate the presence of each contraction, but also to follow the descent of the head. And by keeping a steady slight pressure on the uterine fundus, she could there by help to prevent extension of the arms.

When the angles of the scapulae were visible, arms folded on the chest wall were looked for and flipped out. With the bearing down effort of the mother, the child was now born to its neck. The baby was allowed to hang by its own weight (Burn's Marshall method) from the vulva. The head continued to descend until the nape of the babies neck was visible as indicated by the hair of the foetal scalp. Then the baby was held by its legs with the surgeons back to the patients right leg. The mother was

instructed not to bear down at this stage. The baby was then lifted outwards towards the mother's abdomen. During this process the obstetrician's left hand was used to guard the perineum, and prevent the head from emerging too quickly.

Mucus was sucked out of the babies nostrils and mouth as soon as these were seen at the vulva. Then the baby was delivered slowly and carefully. The process took 5 minutes. The baby had started breathing while the head was being delivered.
0.5 mg of ergometrine was given intravenously to the mother after delivery of the baby and ascertaining the absence of a second twin. The second stage lasted 30 minutes.

The third stage of labour: The cord was clamped and cut. The placenta and membranes were delivered "in toto" by controlled cord traction. The episiotomy was then repaired in the manner described in the introduction. The blood loss was 150mls. The third stage lasted 5 minutes.

THE INFANT:

She was a 3.1 kg, male baby with an apgar score of 10. She had no congenital malformations. There were no signs of brain injury or other skeletal injuries. She remained in good condition.

THE MOTHER:

The maternal condition remained normal during the postpartum period. She was instructed not to wash her perineum with warm water.

The mother and child were discharged on the second postpartum day. She was given ferrous sulphate and folic acid. She was advised to start family planning. She was seen at the postnatal clinic one week later, so that the episiotomy could be examined, to see how well it had healed. Her general condition was good. She was not pale and was afebrile. She was breast feeding well.

The uterus was just palpable. The lochia was normal. The episiotomy was well healed.

COMMENTARY:

Any presentation other than vertex is malpresentation. The rate of malpresentation at Muhimbili is 0.3%, the commonest being breech (= 10.9% of all malpresentations). The overall incidence of breech presentation at Muhimbili is 4.9% of all deliveries. The incidence quoted in literature is 2 - 3% of all deliveries, but varies according to policies on prophylactic external cephalic version.

One of 4 women has a breech at 30 weeks which turns at 34 weeks. If someone presents with a breech in labour it is a persistant breech presentation which should have turned. The aetiology of breech presentation is a matter of conjecture. But associated factors include; prematurity, multiple pregnancy, placentae praevia, space occupying lesions, and, contracted pelvis only being responsible for 7% of breech presentation.

The breech infant is more than one who happens to present with buttocks first. The breech presentation has specific characteristics and complications resulting in increased perinatal mortality and morbidity rates compared to non-breech. Measures to reduce maternal and perinatal mortality include:; a good antenatal and intrapartum management.

Antenatally: A history of a multiparous woman with a good past obstetric history is favourable for vaginal delivery. Pelvic assessment and determination of foetal size should be done. The management of this woman was purely based on clinical judgement, because as it often hapens, this patient was encountered for the

first time in labour.

If this patient had been encountered antenatally, one of the methods to improve perinatal mortality and morbidity would be external cephalic version at 32 - 34 weeks of gestation. This is because assisted breech delivery is associated with a high perinatal mortality rate at Muhimbili (of about 11.1% uncorrected). Quite apart from mortality, the morbidity is also high. External cephalic version can reduce the incidence of breech to about 1 - 1½%. The procedure of external cephalic version is valuable and safe, unless, performed under anaesthesia. An X-ray pelvimetry is almost out of fashion because:-

a) Of the irradiation hazard, though small

b) The pelvic capacity does not solely depend on the bonny pelvis; but may be reduced by encroachment of adipose tissue, and therefore does not guarantee a safe vaginal delivery, and

c) The foetal head cannot be used as a pelvimeter in breech presentation. So it must not be done routinely except in primiparas and selected multiparas..

In this patient it was unnecessary, because the history and physical examination were not suggestive of any danger.

The intrapartum management of breech presentation is still contraversial. Several years ago, Potter believed all breech presentation to be abnormal, and performed Caesarean section in all. Later on he developed one of the best methods of vaginal breech delivery.

The increasing rate of Caesarean section in mature breech deliveries has definitely improved the quality of the neonates, not just delivering a live baby. Therefore more liberal Caesarean section is indicated even for minor additional problems e.g.

maternal age, bad obstetric history, It is even omore indicated when the baby is large (no trial of labour in breech), poor progress of labour and early foetal asphyxia. A vaginal delivery was decided on this patient because the history and physical examination were favourable, and the progress of labour was very good. The fact that this was a complete breech should theoretically have produced a more prolonged first stage of labour. As it can be seen in this patient, it did not. This is because complete breech occurs in multiparous, who are more efficient in uterine activity. During labour an artificial rupture of membranes was not done because complete breech is frequently accompanied with cord prolapse. An episiotomy was done because it eliminates the obstruction caused by the perineum, and thus straightens the birth canal. Much of the cord was pulled down just in case there was undue tension. During labour, vaginal analgesia was not used due to lack of facilities. The obstetric forceps was not used because delivery was imminent.

PLACENTA PRAEVIA:

CONSERVATIVE MANAGEMENT AND SPONTANEOUS VAGINAL DELIVERY:

Name: C.M. Age: 28 years old Tribe: Mnyakyusa

I.P. No: 00391/M/82 Address: Ubungo, Dar es Salaam

Date of admission: 25.6.1982

Date of delivery: 11.8.1982

Date of discharge: 12.8.1982.

SUMMARY:

Mrs. C.M. a 28 year old Gravida 4 with three living children was referred from a peripheral clinic at 28 weeks of gestation. She complained of repeated painless vaginal bleeding. The presenting part was high and the foetal heart was heard. The uterus was soft non-tender. On examination under anaesthesia she was found to have a minor placenta praevia. She had an uneventful vaginal bleeding at 38 weeks of gestation.

ANTENATAL PERIOD:

She booked at 28 weeks of gestation and paid two visits. Her last normal menstrual period had started in late November, and her expected date of delivery was early September. Her cycles had been regular.

On admission the patient complained of painless vaginal bleeding of one day duration. This was her second episode. The vaginal bleeding started suddenly while she was in bed. The blood was bright red and soaked her under pants and pad. She estimated to have lost about 100mls. of blood. The foetal movements were present, and the abdomen had not increased in size that day. She had neither headache nor dizziness. She had nor palpitation or precordial pain. Her apetite was good and opened her bowel normally She had no urinary symptoms.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

This was her fourth pregnancy. All her three deliveries were full term normal deliveries at Muhimbili Hospital. Her deliveries were first in 1975, second in 1976 and third in 1978. She did not remember their birth weights. She had no antenatal or postnatal problems.

She had her menarche at 15 years, and her menses lasted 4 days every 28 days. The flow was normal. She had neither dysmenorrhoea nor dyspareunea. She had no intermenstrual bleeding. She had not suferred from any vulval ulcers. She had not used any contraceptives.

PAST MEDICAL HISTORY: She had not suffered from any major illness

SOCIAL AND FAMILY HISTORY:

No member of her family had suferred from tuberculosis, cardiac disease, hypertension or diabetes mellitus. There was no history of twins in the family. She got married 7 years back. Her husband was a form four leaver who worked as a clerk in town. She was a class seven leaver who was working as a machine operator with a textile mill in town. She neither smoked nor took alcohol.

PHYSICAL EXAMINATION:

She was in good general condition. She was not pale and had no oedema., She was afebrile and she was not jaundiced.

The throat, mouth, teeth and gums were normal. The breasts and nipples were normal.

Cardiovascular system: The blood pressure was 110/70 mm of mercury. Her pulse rate was 76 per minute, regular and of normal volume. The first and second heart sounds were audible and normal.

Respiratory system: All the lung fields were normal.

ABDOMINAL EXAMINATION:

The abdomen was uniformly enlarged. The liver, spleen and both kidneys were not palpable. The renal angles were non-tender. The abdomen was soft, non-tender. The uterine size was 30 weeks. The foetus was small with a longitudinal lie and a high cephalic presentation. The foetal heart rate was 146 per minute and regular.

VAGINAL EXAMINATION:

Inspection revealed a few blood clots at the introitus but no fresh bleeding. Streaks of blood were also seen over the inner parts of the thighs. No digital or speculum examination were done at this juncture.

DIAGNOSIS: Placenta Praevia.

INVESTIGATIONS:

1. Blood - Haemoglobin 10.0 G/dl.
   - Blood group O Rh (D) positive
2. Urine - No albuminuria or glycosuria

TREATMENT:

A. General: 1. Complete bed rest
   2. General condition, blood pressure and pulse rate were charted half hourly.
   3. The patient signed consent in readiness for any emergency operation

B. Fluids: 1. An intravenous drip of 5% dextrose was started to keep the vein patent.
   2. Blood was available later on the same day and two units were transfused.

C. Drugs: 1. Morphia 15 mg was given as an intramuscular injection.

PLAN:

The patient was scheduled for:

a) Speculum examination after 5 days, 30th June, 1982

b) Echoscopy for placental localization and determination of biparietal diametre, 30th June, 1982

1. Speculum examination:

This revealed no more vaginal bleeding. The vaginal walls and fornices looked healthy. There was no active bleeding from the cervical os.

2. Echoscopy:

This revealed placenta praevia. The biparietal diametre was 8 cm. (equivalent to about 32 weeks).

In view of the above findings the patient was booked for examination under anaesthesia on 7th August, 1982 i.e. five weeks later.

EXAMINATION UNDER ANAESTHESIA DONE ON 7TH AUGUST? 1982

Premedication:

1. Atropine 0.5 mg intramuscularly
2. Pethilorphan 100 mg intramuscularly.

Anaesthesia: This was induced and maintained as described for Caesarean section in the introduction.

PROCEDURE:

This procedure was done in the operating theatre with the instruments laid down in readiness for an emergency Caesarean section if need be. The scrub nurse was scrubbed and dressed ready for any emergency operation. Two units of blood were available in theatre. An intravenous drip of 5% dextrose was running slowly to,keep the vein patent.

The patient was placed on dorsal position. The perineum and vulva were cleaned with hibitane solution. The patient was then

draped and the bladder was emptied by catheterization.

Using the left hand on the lower abdomen, the foetal head was pushed into the pelvic brim. The right hand was used for vaginal examination. The fornices were palpated systematically to see if there was any intervening mass between the foetal head and the examining fingers. There was none.

Then the index finger was carefully introduced into the cervical canal, reaching the internal cervical os. There was a boggy mass just reaching the edge of the internal os anteriorly, but not covering it. Introduction of the index finger past the internal os revealed that this mass extended higher in the lower uterine segment beyond 3.5 cm. The membranes were also felt. This being a placenta pravia type II anterior (marginal placenta praevia). an artificial rupture of foetal membranes was done. A syntocinon infusion 2.5 i.u in 500mls of 5% dextrose was started at 10 drops every 30 minutes to a maximum of 60 drops per minute. The patient was observed for another 10 minutes to see if there was any evidence of vaginal bleeding and there was none. The anaesthesia was reversed and the patient made a wake. She was then taken back to the labour ward with the following orders:-

1. Step up syntocinon by ten drops every 30 minutes to a maximum of 60 drops per minute.
2. The normal observations of a woman in labour were carried out.

CONDUCT OF LABOUR:

1. First stage:

1 hour later (6.00 p.m). The patient started having contractions which were weak lasting twenty seconds and coming every 10 minutes. There was no vaginal bleeding. The cervix had dilated to 3 cm. The foetal position was left occipital lateral.

In the urine there was no protein, glucose or ketone bodies. 4 hours later the patient was reviewed. She had strong contractions which were now more frequent with intervals of five minutes. The cervix had dilated by a further 5 cm. and only one fifth of the head was above the pelvic brim.

2. Second stage:

At 12.00 midnight the contractions were very strong and the cervix was fully dilated. The patient was then moved in the second stage room and placed in lithotomy position with the syntocinon drip still running.

The vulva and the perineum were cleaned with an antiseptic solution (cetrimide). The doctor in attendancy scrubbed and put on sterile rubber gloves. The patient was encouraged to bear down with every contraction. As she pushed the head descended and came out easily. There was no cord around the neck. Delivery of the shoulder was controlled and then the trunk followed. Ergometrine 0.5 mg intravenously was given promptly. A female baby weighing 3.3 Kg with an apgar score of 10 was born. The umbilical cord was clamped at two points and cut. The second stage of labour lasted about 25 minutes.

3. Third stage:

The surgeons left hand was placed on the lower uterine segment on the anterior abdominal wall. Then the placenta and membranes were delivered by controlled cord traction as the uterus contracted. The placenta and membranes were completed. The uterus was then gently squeezed of blood clots. The patient, was observed for a further 30 minutes to see if there was any vaginal bleeding, the blood pressure and pulse rate being taken quarter hourly. These remained normal and there was no vaginal

bleeding. The blood pressure was 110/70mm of mercury, and a pulse rate of 80 per minute, regular and of normal volume. Both the patient and her baby did well and were discharged on the second post delivery day. The mother agreed to starting contraception. She was thus referred to our family planning clinic where she had an intrauterine device inserted.

COMMENT:

Placenta praevia is the presence, wholly or partly of the placenta in the lower uterine segment. This is a common problem in pregnancy. It carries with it the risk of mortality in the mother or baby or both. The perinatal mortality is mainly due to prematurity. Maternal mortality and morbidity are due to exanguination and sepsis. These mothers are predisposed to pueperal sepsis because of the:

a) Severe anaemia

b) Placental site which is larger and lower in the genital tract being more easily accessible to ascending genital tract infection.

Little is known about the aetiology of placenta praevia but high parity, advancing age, and large placental site favour its occurance.

The typical presentation is painless repeated antepartum haemorrhage in a multiparous woman. The bleeding is usually causeless as it occured in this women. Association with activities like attending to toilet or coitus is less common. The blood is usually bright red and the foetal movements are not lost. The presenting part is usually high and the foetal heart is usually heard. The patient fits quite well in this patient. Also symptoms of

EPH gestosis must be looked for in an effort to exclude abruptio placenta.

A soft non-tender abdomen, malpresentation and viability all speak for placenta praevia rather than abruptio placenta.

On admission the haemoglobin must be estimated, and blood crossmatched. If the condition calls for blood transfusion this must be done immediately. In this patient, a speculum examination was not done until five days after the bleeding had stopped. This is because:

a) If there is an appreciable amount of blood in the vagina, it will not be possible to visualized the cervix without resorting to "mop" which may cause just as torrential bleeding as digital examination;

b) Introduction of the speculum may cause further vaginal bleeding.

c) The aim of the speculum is to rule out the lesions of the cervix and vaginal vault, which might be the cause of vaginal bleeding.

A different school of thought advocates speculum examination while the bleeding continues in order to identify the source of bleeding.

Considering the length of hospital stay for a patient with suspected placenta praevia; efforts must be made to localize the placenta early. The various methods include radioisotope localization of placenta, soft tissue placentography, ultrasonic placentography and arteriography. Infra red thermography has lost popularity. Confirmation is done by feeling for the placenta in the lower uterine segment digitally.

The management of antepartum haemorrhage entails that, all patients with haemorrhage more than show should be admitted to hospital. This is because a subsequent serious haemorrhage may occur under conditions less than acceptable where therapy is concerned.

A decision for prompt therapy must be made i.e. resuscitation with or without delivery by the most expeditious method. So the management can either be "aggressive" where prompt delivery has been decided on, or "Conservative", where delivery is deferred until the foetus acquires a more favourable maturity. The second option gives one time to:

a) eliminate or confirm placenta praevia by the various methods pointed out earlier.

b) Determine the best method for subsequent management depending on:

i) Foetal gestationa age - often the dates are unreliable, where the dates are reliable, at gestational age of 37 weeks and above, there is no advantage to be gained by waiting but much can be lost. If the gestational age is questionable, maturity tests should be done. If the foetus is unquestionably immature, conservatism is the mode of management.

ii) Type of placenta praevia - Though placental praevia can be diagnosed by the methods outlined earlier, confirmation of placenta praevia is done by digital examination. There is no place for conservatism if central placenta praevia has been diagnosed. Conservatism in presence of central placenta praevia not only seldomly suceeds, but also increases the peril for both the mother and the foetus. This risk is less in placenta praevia with lower degrees of encroachment of the internal os.

iii) Vaginal bleeding - Of utemost importance are the number and amount of bleeding. A life threatening haemorrhage is an absolute indication for prompt delivery as much as repeated haemorrhages.

iv) Presence of labour - This is a very rare occurance but if it occurs, there is neither a justification not opportunity for conservative management

v) Condition of the mother and foetus - If neither is in immediate jeopardy the management should be conservative.

vi) Facilities - Conservatism should be done if circumstances and physical facilities permit continuous hospitalization until optimal time for delivery e.g. blood being readily available at any time during the patient's hospital stay, the patients being on strict bed rest and an operating theatre being available immediately all the time.

Once a decision to terminate pregnancy has been made, the actual method of delivery depends on, the type of placenta praevia, severity of bleeding, parity, condition of the patient and foetus, the state of the cervix, presence or abscence of labour, and foetal presentation. In central placenta praevia, or multiparous woman with unfavourable cervix; or abnormal foetal presentation a Caesarean section is necessary. A multiparous woman with a partially dilated cervix or marginal placenta praevia should have an amniotomy and induction with syntocinon and hope for a vaginal delivery.

The justification for conservative management in this patient, was that:

a) The foetus was less than 37 weeks of gestation

b) The vaginal bleeding was not excessive though this was a second episode

c) The placenta was type II anterior and

d) The mother and foetus were not in immediate jeopardy.

This is one of the rare instances because in most cases vaginal delivery after placental praevia type II A has been diagnosed is better said than achieved.

This was probably successful in this patient because the examination under anaesthesia was "elective" rather than "emergency" plus the favourable situation that there was no active shearing of the placental bed throughout labour.

HEART DISEASE IN PREGNANCY

UNEVENTFUL ASSISTED VAGINAL DELIVERY AT TERM:

Name: Mrs. A.M. Age: 36 years old Tribe: Mbondei

Religion: Christian I.P. No: 661/83

Address: Magomen, Dar es Salaam

Date of admission: 03.08.1982

Date of delivery: 13.10.1982

Date of discharge: 27.10.1982

SUMMARY:

Mrs. A.M. Gravida 3 Para 1 + 1 booked at a peripheral dispensary at 20 weeks of gestation. She was referred to Muhimbili Medical Centre at 28 weeks of pregnancy because she had fever, exertional dyspnoea and palpitations. She had no other signs and symptoms of heart failure. She was found to have rheumatic heart disease and malaria infection. After treatment she improved symptomatically and was discharged through the antenatal clinic. She was readmitted at 38 weeks of gestation. One week later she went into labour and delivered a 3.2 Kg female baby with an apgar score of 10. Labour, delivery and puerperium were uneventful. She was discharged on the 14th postpartum day. The management of heart disease in pregnancy is discussed.

PRESENT OBSTETRIC HISTORY:

She booked on 7th June, 1982 at Magomeni dispensary. She was 20 weeks pregnant. Her last normal menstrual period had started on 11th January, 1982, therefore her expected date of confinement was 18th October, 1982, and she was 20 weeks by dates. On her second antenatal visit she was referred to Muhimbili Medical Centre because she had fever slight exertional dyspnoea, and palpitations. She had no orthopnoea, precordial pain, or swelling of

the lower limbs. She had felt foetal movements. She opened her bowel normally and she had no loin or abdominal pains. She denied any history of frequency, dysuria and urgency. She had neither vaginal bleeding, nor vaginal discharge in this pregnancy.

PAST OBSTETRIC HISTORY:

This was her 3rd pregnancy. The first pregnancy which was 1974 ended up as an abortion at 3 months of gestation. She had an evacuation done at Muhimbili and was not given any antibiotics after that. But she had no problems. The second pregnancy was full term, normal delivery at Ocean Road Hospital in 1978. This was a male baby, but she did not remember the birth weight. Her pregnancy, delivery and puerperium were uneventful. The child is alive and well.

GYNAECOLOGICAL HISTORY:

She had her menarche at 14 years. Her menses lasted 3 - 4 days every 27 days. The menses were regular and of normal flow. She had no associated problems during her menses. She had never used any contraceptives.

PAST MEDICAL HISTORY:

During her childhood, she had suferred from attacks of common colds, but neither frequent fevers nor joint pains. She had had no dyspnoea, orthopnoea or lower limb swelling during her childhood. This was her 3rd admission, the first one for abortion and the second one for delivery. She had not been in contact with any patient with pulmonary tuberculosis.

FAMILY AND SOCIAL HISTORY:

She was the first born in a family of four. Nobody in the family had suferred from heart disease, high blood pressure,

pulmonary tuberculosis or diabetes mellitus. There was no history of multiple pregnancy in her family or the husband's family.

She was a class seven leaver, a primary school teacher, married 6 years back. She did not smoke nor take alcohol, and she was on digoxin and a one monthly injection.

PHYSICAL EXAMINATION:

General condition:

The patient looked healthy. Her weight was 60.7 Kg. and her height was 156 cm. She was not pale and not jaundiced. She had neither thyroid enlargement, nor cervical lymphadenopathy. The teeth and gums looked normal. She had no septic foci in the oralpharynx. She had no pitting oedema of the lower limbs and sacral area. She was febrile with a temperature of 38°C. The breasts and nipples were normal, and there were no breast lumps.

Cardiovascular system: The pulse rate was 104/minute and of normal volume. The blood pressure was 120/70 mm Hg. The jugular venous pressure was not raised. The apex beat was in the fifth left intercostal space within the mid-clavicular line. There was a rough, rumbling, apical mid-diastolic murmur; which was accentueted by turning the patient on her left lateral position. There were no other added sounds.

Respiratory system: She was not tachypnoeic or dyspnoeic. The respiratory rate was 24/minute. The chest cage and movements were symetrical. The trachea was central. The breath sounds were vesicular and there were no crepitations.

ABDOMINAL EXAMINATION:

The abdomen was evenly enlarged. There were stria gravidarum on the abdominal skin. The liver, spleen, and both kidneys were not palpable. Both renal angles were non-tender, and there

was no right hypochondrial tenderness. The fundal height was equivalent to 28 weeks of gestation and corresponding with dates. The lie was longitudinal, and the presentation was cephalic. The fetal heart rate was 142/minute and regular.

The central nervous system and musculokeletal system were normal.

VAGINAL EXAMINATION:

The vulva and vagina looked normal and there was neither vaginal bleeding nor abnormal vaginal discharge. The,cervix looked healthy and parous but was closed.

DIAGNOSIS:

1. Heart disease in pregnancy (Mitral stenosis)
2. Fever due to clinical malaria.

INVESTIGATIONS:

1. Blood - Slide for malaria parasites was positive (+++)
   - Haemoglobin 11.6 gm/dl.
   - Blood group O Rh (D) Positive
   - VDRL was negative
   - WBC - the total and differential counts were normal and the peripheral film was normal
   - Culture yielded no pathogens
   - Serum electrolytes were normal.
2. Urine - There was no sugar or protein
   - Culture grew no pathogens.

PLAN OF MANAGEMENT:

1. General:
   a) Bed rest
   b) Close observation of blood pressure, pulse rate, and temperature

c) Weekly weight (not to exceed 0.6 Kg/wk) and haemoglobin was done weekly.

d) She was referred to the physicians for review of the heart condition. Mitral stenosis was confirmed.

2. Drugs:

1. Tablets of camoquine were given 3 tablets stat, then 2 tablets after 6 hours, followed by 2 tablets daily for another 2 days.

2. Tablets of digoxin 0.25 mg daily were given as maintainance dose.

3. Tablets of ferrous sulphate were given 5 mg daily.

PROGRESS:

On the second day, she had no symptoms. Her pulse and blood pressure were normal. Her temperature was 37.2°C and she had no signs of impending failure.

She was discharged on the 5th hospitalization day with the following instructions:

i) Advised to rest for 12 hours during the night and two hours in the afternoon.

ii) She was to go to bed even for very mild colds.

iii) She was to be seen at the antenatal clinic and medical outpatient for:

a) Evaluation of her cardiac condition;

b) Survaillance of early signs of cardiac failure, infection, anaemia and excessive weight gain (more than 0.6 Kg) week.

iv) She continued with maintanance digoxin and prophylactic drugs i.e. chloroquine, haematemics and penicillin "V".

v) Diet - She was advised to take milk, vitamins and reduce salt intake.

She paid four antenatal visits and all was well. She was re-admitted on the 38th week of pregnancy in the antenatal ward to rest while awaiting labour.

On 12th October, 1982, one week after re-admission, the patient went into labour and was transferred to the labour ward from the antenatal ward. In labour ward she complained of labour like pains which had started three hours before she was transferred to the labour ward. She had no history of draining liquor, but had vaginal discharge which was mucoid and mixed with blood (show).

PHYSICAL EXAMINATION:

She was in pain. She was not dyspnoiec and not anaemic. She had no lower limbs or sacral oedema and she was not jaundiced or afebrile.

Her pulse rate was 84/minute, regular and of good volume. Her blood pressure was 110/70 mm Hg and the jugular venous pressure was not raised. She had a mid-diastolic murmur but there was no cardiomegally. The lung bases were clear.

ABDOMINAL EXAMINATION:

The abdomen was uniformly enlarged. The liver, spleen and both kidneys were not enlarged. Both renal angles and the right hypochondrial area were not tender. The fundal height was equivalent to term pregnancy, and she had 3 - 4 contractions every 10 minutes.

The presentation was longitudinal, cephalic, and the head was still above the pelvic brim. The fetal heart rate was 144 per minute, and regular.

VAGINAL EXAMINATION:

This was done under aseptic condition as described in the

introduction. The vulva and the vagina looked normal. There was a mucoid vaginal discharge mixed with very slight blood, but no active bleeding. The cervix was 4 cm. dilated and fully effaced. The membranes were bulging; and were ruptured using a sterile Kocher's forceps. There was no meconium, and no cord prolapse. The pelvis was adequate for this baby.

CONDUCT OF LABOUR:

A. 1st stage of labour:

1. The patient was propped up with four pillows
2. The sedation Pethilorphan was given 100 mg intramuscular after every 6 hours.
3. Injection Ampicillin was given 500 mg intramuscular for five days, and the patient continued with oral ampicillin 500 mg three times a day for one more week.
4. Oxygen was kept available
5. Strict observation of the blood pressure, pulse and respiratory rate was made throughout labour.

B. 2nd stage of labour:

Four hours later, the patient had very strong contractions about 4 - 5 every 10 minutes. The cervix was fully dilated and there was no caput and only slight moulding. The position was left occipital anterior. Because the 2nd stage was to be assisted:

a) the patient was discouraged from bearing down

b) the vacuum extractor was prepared.

Because the patient was anxious she was given another 100 mg of pethilorphan intramuscularly. Delivery was achieved with vacuum extraction and episiotomy.

C. 3rd stage:

The patient remained propped up. No ergometrine was given. The placenta and membranes were delivered and were complete. The total blood loss was 250mls. The episiotomy was repaired under local anaesthesia. The blood pressure pulse and temperature were charted throughout her stay in the ward.

THE INFANT:

This was a female baby 3.2 Kg with an apgar score of 10 at 1 minute. She had no congenital malformations. By the next day the baby was breast feeding well. The observation of blood pressure, pulse and temperature were continued until the 10th postpartum day, when the mother and the baby were discharged to come back to the postnatal clinic after three weeks.

FOLLOW UP:

Three weeks later the patient was seen at the postnatal clinic. She had no palpitations and no dyspnoea. She had no lower limb swelling. Her haemoglobin was 11.5G/dl. Her pulse rate was 84/minute, regular and of normal volume. Her blood pressure was 110/70 mm Hg. The jugular venous pressure was low. The lung bases were clear. The first and second heart sounds were normal. The apical mid-diastolic murmur was still there. There was no lochia; and the uterus was well involuted. She was discharged through the medical outpatient clinic. She was advised to start contraception which would be available at family planning clinic.

COMMENTARY:

Heart disease in pregnancy implies either a cardiac or aortic lesion, and may be acquired or congenital. The incidence

varies from centre to centre, and to the degree which minor cardiac lesions are looked for and registered. The commonest heart disease in pregnancy is rheumatic heart disease. Mitral stenosis alone accounting for 90% of cardiac lesions in pregnancy. The natural history of rheumatic heart disease is such that after a symptomatic attack of carditis, arthiritis, fever and anaemia in childhood, there is a quiscence period. The lesion only being obvious again during the child bearing age.

It is not suprising therefore to find a bulk of rheumatic heart disease in pregnancy. Lack of full blown up picture of rheumatic fever in childhood, as in this patient is very common finding.

Absence of family history of rheumatic heart disease in this patient is unusual, because this disease has a certain genetic predisposition. This patient was admitted at 28 weeks of gestation because of fever, slight exertional dyspnoea and palpitations. In heart disease, during pregnancy, it is necessary to detect, and treat factors which may precipitate heart failure. The cause of the fever in this patient was malaria which was treated. Very likely this fever was responsible for the tachycardia and palpitations - which may precipitate heart failure. Also surveillance of anaemia, infection, excessive weight gain, was very necessary. The gestational age of 28 weeks, when this patient was admitted is the time when the heart is shouldering its greatest load. An evaluation of the cardiac state at this gestation was necessary even if the patient did not have all other symptoms. If the condition is satisfactory at 28 weeks gestation, then the outlook in labour is very good.

This patient's heart condition was classified as grade II. Possibly in the first two pregnancies she was grade I. This stage

therefore indicates a deterioration in severity of the symptoms with pregnancy. This classification is according to the New York Heart Association (1964). It is a useful guide to the severity of the symptoms, but does not bear much relationship with the extent of heart lesion. Also, because it is based on subjective response of the patient, it is subject to errors. Exercise tolerance may be desreased, particularly in late pregnancy due to increased body weight and mechanical disadvantage of increased abdominal girth. Relative tachycardia, hyperventillation and increased work of breathing, may be mistaken for dyspnoea rather than increased awareness of breathing. On the other hand, a severe mitral stenosis in an apparently healthy strong woman, may be underrated when she presents without subjective symptoms.

So physical examinations like, cardiomegally, diastolic murmurs, or atrial fibrillation, should subsidize the classification above. However, cardiomegally in pregnancy may be difficult to recognize, because even in normal pregnancy, the apex beat is displaced up into the 4th intercostal space outside the mid-clavicular line.
That the patient was re-admitted at 38 weeks of gestation when the heart is being relieved of its work load due to hypervolaemia may appear paradoxical.

The advantages of admitting the patient at this time are:-

a) She is unlikely to catch any respiratory infection during her stay in the ward, and if she does it can be diagnosed and treated vigorously.

b) It obviates the danger of transporting such patient in labour, considering our poor transport facilities.

c) It is now thought that, fall in blood volume at term does not occur, so that the question of the heart being relieved does not arise.

During labour, in the second stage maternal bearing down efforts were discouraged because they produce cardiodynamic changes which can be tolerated by normal mothers, and not cardiac patients.

In assisting the second stage, after doing an episiotomy, the author chose to use Ventouse extractor rather than a forceps, because; this is less disturbing to the patient, there is no need to put the patient on lithotomy position, he was more experienced with this machine than forceps.

In the third stage one has to safeguard against the sudden raise in cardiac output which immediately follows delivery. This raise is due to increase venous return from:

a) Marked diminution of uterine size and the surrounding tortuous uterine vessels

b) Relief of inferior vena canal occlusion. During labour therefore, in heart disease a CVP should be used to monitor the cardiodynamic state - if facilities are available.

The hazards due to this condition can be prevented by, early diagnosis, prevention of factors which precipitate heart failure, and thorough supervision during the antepartum, labour, delivery and puerperial periods.

ABDOMINAL PREGNANCY: LAPARATOMY DONE:

A LIVE BABY WAS DELIVERED.

Name: Mrs. A.J. Age: 35 years, Tribe: Mkwere

Religion: Muslim I.P. No: 7835 Address: Kibamba, Kibaha

Date of admission: 14.7.1982

Date of operation: 14.7.1982

Date of discharge: 23.7.1982

SUMMARY:

Mrs. A.J. was a 35 year old lady, she was a housewife who presented at Muhimbili Maternity ward with a history of 8 months amenorrhoea and ceasation of foetal movements two weeks prior to admission.

Physical examination and investigations were suggestive of an extrauterine pregnancy. An abdominal pregnancy was confirmed at laparatomy. Delivery of a live baby, placenta and membranes was achieved. Right salpingoophorectomy was also done. Recovery was uneventful. The management of abdominal pregnancy and its aetiology are discussed.

HISTORY OF PRESENT ILLNESS:

She was an unbooked case referred from Kibaha because of less of foetal movements two weeks before admission. The foetal movements had been extremely painful and high up in the abdomen. She was also experiencing difficulties in breathing but no cough or fever. Throughout this pregnancy she had experienced a constant abdominal pain; nausea and vomiting. She gave a history of vaginal spotting in this pregnancy, but no definite vaginal bleeding or fainting attacks. Her bowel movements were normal. She had no urinary symptoms. She did not remember her last normal menstrual period, but she thought she was 8 months pregnant by lunar months.

PAST OBSTETRIC HISTORY:

This was her 3rd pregnancy, and she had two living children. Her last born child was 8 years old. All her deliveries were full term, home deliveries. She had had no antepartum intrapartum or postpartum complications.

GYNAECOLOGICAL HISTORY:

She had her menarche at 13 years of age. Her menses were regular lasting 4 days every 27 days. She had no problems during or after her menses. She had had no vaginal discharged. She had never used any contraceptives.

PAST MEDICAL HISTORY: She had no history of any major illness.

SOCIAL AND FAMILY HISTORY:

She was a housewife. She had not had any formal education. Nobody in the family had suferred from diabetes mellitus, cardiac disease or hypertension. She had not been in contact with any patient with pulmonary tuberculosis. There was no history of twin pregnancy in the family.

PHYSICAL EXAMINATION:

She looked wasted and weak., She was not pale, afebrile and had no oedema. She was not jaundiced. She weighed 50½ Kg, and her height was 152 cm. The teeth, gums and throat were normal. She had neither lymphnode nor thyroid gland enlargement. Her breasts and nipples were normal, and a clear fluid could be expressed from the nipples. There were no breast lumps.

Cardiovascular system:

Her blood pressure was 90/70 with a pulse rate of 98/minute, regular and of normal volume. The heart sounds and size were normal.

Respiratory system:

She was slightly hyperventilating, but she had no dyspnoea. The chest was symetrical and the lung fields were clear.

ABDOMINAL EXAMINATION:

The abdomen was distended up to the xiphisternum. The abdominal skin was shiny. Two different abdominal masses were palpable. An upper abdominal mass contained a floating ballotable foetus whose fetal parts were easily palpable. No round ligaments could be palpated. There was a lower pelvic mass, about 16 weeks which was firm. The abdomen was non-tender. The foetal heart rate was 148/minute, and regular. The maternal vascular suffle was normal.

VAGINAL EXAMINATION:

The vulva and vagina were normal. The cervix was firm, long and closed. The fornices were normal. The uterus felt small and firm.

DIAGNOSIS: Advanced abdominal pregnancy.

INVESTIGATIONS:

A. Blood - Haemoglobin - 8.9 G%

- Blood group A Rh (D) positive - 4 units were available.

B. Urine - No sugar and no protein

C. X-ray - Abdominal

(a) Lateral - there were small foetal parts overlaping with maternal spine and there was no uterine shadow around the foetus.

(b) AP - an obliquely lying foetus was floating high in the maternal abdomen

D. Echoscopy - Foetal activity was demonstrable. There was no uterine outline around the foetus.

- The uterus was demonstrable. The foetal head was outside the uterus.

In view of the above findings the patient was prepared for an immediate laparatomy. The consent was obtained and the abdomen was prepared after explaining to the patient the decision that had been made.

PRE-MEDICATION: 1. Injection of Atropine 0.6 mg intramuscularly stat.

2. Injection Pethidine 100 mg intramuscularly stat.

ANAESTHESIA: This was induced and maintained as described in the introduction.

FOUND: An abdominal pregnancy was found surrounded by a thick tissue containing the foetus, placenta and membranes. The tissue was attached to the right broad ligament, tube, ovary and the omentum. No major vessels were involved. The intestines were also not involved. The main blood supply was from the omentum.

DONE: The baby a female 1.6 Kg was delivered after rupturing the membranes. The apgar score was 8.

In order to ligate the main blood supply partial omentectomy was done. Partial salpingoophorectomy was also done. The placenta and membranes were thus removed. There was no torrential bleeding The abdomen was closed in layers. The baby had no congenital malformations.

POST OPERATIVE PERIOD:

A. General: 1. The blood pressure, pulse and respiratory rate were charted 1 hourly.

2. The temperature was charted 4 hourly.

3. An indwelling catheter was left for 24 hours

4. An intake and output chart was kept.

All these parameters remained normal.

B. Fluids 1. Three units of blood were transfused.

2. One and half litres of dextrose saline were infused making a total of 3 litres of fluid per 24 hours.

C. Drugs: 1. Injection of Pethidine 100 mg intramuscularly was given every 6 hours for 24 hours.

2. Injection Procaine Penicillin 1.2 m.u intramuscularly was given daily for five days.

3. Injection chloramphenicol 500 mg was given intramuscularly for three days, then it was changed to oral 500mg three times per day for a further three days.

PUERPERIUM:

The patient did well. The intravenous drip was removed on the third post operative day. Her haemoglobin was 9.6 gm/dl. by the third day and the patient was ambulant. Ferrous sulphate 200 mg three times per day and folic acid 5 mg once daily were given to correct the anaemia.

On the 8th post operative day the wound was checked and was found to be clean. The stitches were removed. The mother was discharged on the 9th post operative day on haematemics. She was seen at the postnatal clinic six weeks later. She was not anaemic and the scar was well healed. She was told to report to Muhimbili when she gets the next pregnancy.

COMMENT:

Abdominal pregnancy is a rare but the most serious occurance. It accounts for about 1.6% of all ectopic pregnancies. It may be primary or secondary to a tubal abortion. The history of

abdominal pain and vaginal spotting was suggestive of a secondary abdominal pregnancy. At laparatomy tubal damage and the relation of the abdominal pregnancy to the tube and uterine broad ligament were a further proof of a secondary abdominal pregnancy.

This is in agreement with the findings elsewhere, that the majority of abdominal pregnancies are secondary. Also in our area there is a high rate of tubal damage by pelvic infections which predisposes our patients to ectopic pregnancy and therefore secondary abdominal pregnancy.

The low parity and infertility group are more frequently the victims. The patient in question was of low parity and with a history of involuntary infertility for 8 years. Painful foetal movements were highly suggestive of abdominal pregnancy.

On physical examination, the foetal parts were easily palpable. This is not a very reliable sign because, there are variations in the thickness of the uterus and anterior abdominal wall even in normal pregnancy.

In this patient, stimulation of the mass to contract (by gentle message) failed. But this can occur even in intrauterine pregnancy. X-ray evidence of foetal small parts overlying the maternal spine in these patients is not infallible. An intrauterine radiopaque material could have outlined the foetus outside the uterus. This procedure should be avoided unless the diagnosis is virtually certain, in which case there would be no need.

An ultrasound confirmed a foetal heart outside the uterine cavity. Oxytocin stimulation is not a valuable test, because it may fail even in intrauterine pregnancy. Because of the risk of intra-abdominal placental seperation, surgical intervention is

indicated once the diagnosis has been made. This confirms the diagnosis and enables energetic treatment. There is no place for conservative management. The management of the placenta at laparatomy depends on the location, blood supply, the state of viability and complications at the time of surgery. Removal of the placenta is the ideal mode of treatment, and, this was achieved uneventfully in this patient. But if any doubt had existed about the safety of removing the placenta, it would be wiser to leave it undisturbed, and ligate the cord close to the placenta without draining the sac.

The placenta absorbs without bleeding or infection. At follow up, after such management HCG should be taken serially The placenta may however remain functional up to 50 days after delivery. The value of methotrexate to hasten resorption is uncertain.

The fact that the baby died after 8 hours is not surprising, because the perinatal mortality in these cases is very high more than 95%. The maternal mortality is about 6%. The cornestone of the management is early diagnosis and energetic surgical intervention.

THE MANAGEMENT AND OUTCOME OF PATIENTS WITH PREVIOUS CAESAREAN SECTION SCARS AT MUHIMBILI MEDICAL CENTRE

A PROSPECTIVE STUDY.

ABSTRACT:

A total of 259 consecutive patients were seen during the period of study at Muhimbili Medical Centre (MMC). All had had antenatal care, mainly from the peripheral clinics. The mean gestational age at first visit (21 weeks) was lower than that of the general population. The parity was also low (1 - 3). 95.2% of the patients knew the indication for their previous Caesarean section. Elective repeat Caedarean section was performed in 51 (19.7%) patients mainly because of having more than two scars, and cephalopelvic disproportion (CPD).

Of the 208 patients allowed trial of vaginal delivery, 70.7% delivered vaginally, 29.3% had repeat Caesarean section, in labour due to poor progress of labour, foetal distress, CPD discovered in labour, and scar tenderness. There were no scar ruptures. The implications of this study in the management of patients with previous Caesarean section at Muhimbili are discussed.

INTRODUCTION:

Caesarean section is being done with increasing frequency, because properly executed, carries little more risk for the infant, than vaginal delivery attempted in presence of obstetric complications. However, there are more risks of morbidity and mortality than are associated with uncomplicated vaginal delivery.

The magnitude of these risks is related to:

(a) the indications; (b) whether or not it is an emergency or elective, primary or repeat Caesarean section (c) the type of

incision and (d) anaesthesia.

Since its introduction by Munro Kerr in 1921, and its popularization by St. George Wilson, Bailey and Harvey - Evers, the lower segment Caesarean section, has fulfilled its two major objectives: (a) reduced the immediate maternal morbidity and mortality from haemorrhage (b) the scar, by virtue of its site, has proved to be of greater intergrity than an upper segment. It has thus allowed trial of vaginal delivery.

What are the risks of Caesarean section scar, considering subsequent pregnancies? The incidence of scar rupture after a lower segment Caesarean section is said to be 2%, compared with 15% for classical incision[4]. A study done by Garnet[6] - Showed that previous scarring of the uterus was the greatest predisposing factor to uterine rupture. Donald who reported the incidence of uterine rupture to be 1 in 2500 pregnancies found that the problem was confined to those women labouring with previous Caesarean section scars, although this is not true here.

What would be the magnitude of adverse effects on both the patients and resources if the dictum "Once a Caesarean section always a Caesarean section" was followed, bearing in mind that approximately 10% of women in developing countries, walk into labour ward with uterine scars? Thus this study examines, prospectively, the outcome in subsequent pregnancies, of those with previous Caesarean section scars with the following objectives:

1. To find out; whether these women receive adequate antenatal care; the gestational age at their first visit.
2. To determine the present parity and the parity at primary Caesarean section.
3. To determine the indications, and number of previous Caesarean sections.

4. To relate the above factors with the outcome of labour and delivery.

5. To provide a baseline data, and recommendations for the management of previous Caesarean section scars.

METHODOLOGY:

A. TARGET POPULATION:

The obstetric unit provides, intrapartum and postnatal care for all patients who have "high risk factors" and grade one patients who wish to attend the unit. In 1980, there was a total of 23481 such antenatal attendencies, and a total of 11552 admissions. Out of these 96 (0.8%) were due to previous Caesarean section. During the same period, there was a total of 32263 deliveries, out of which 117 (3.6%) were by Caesarean section; six hundred and twenty eight (53.4%) having previous Caesarean section scars.

The repeat caesarean section rate was 4.6%. The perinatal mortality rate was 42.9 per 1000 births. These rates can still hold true todate.

B. STUDY POPULATION:

The study population included all pregnant women who ~~had~~ have had "Caesarean section/s" who receive antenatal or intrapartum care at Muhimbili Medical Centre,

C. DATA COLLECTION AND PROCEDURES:

Two hundred and fifty nine consecutive pregnant mothers, with Caesarean section scars were seen, and the following information obtained: Name; Age; parity (present and at time of Caesarean section), the number, dates and indications of the previous Caesarean section/s. The outcome of the present

pregnancy was also recorded in each case. A record of whether or not the patient attended antenatal clinic in this pregnancy was also made. If the patient had attended the antenatal clinic, the gestational age at first visit, and any antenatal advice given was noted.

The planned method of delivery, if, any, was recorded in every case. After delivery, the following information was recorded: (a) The method of delivery (b) the foetal outcome in terms of perinatal deaths or no perinatal deaths, and birth weights (c) Rupture of the scar, and, maternal deaths if any.

MATERIALS:

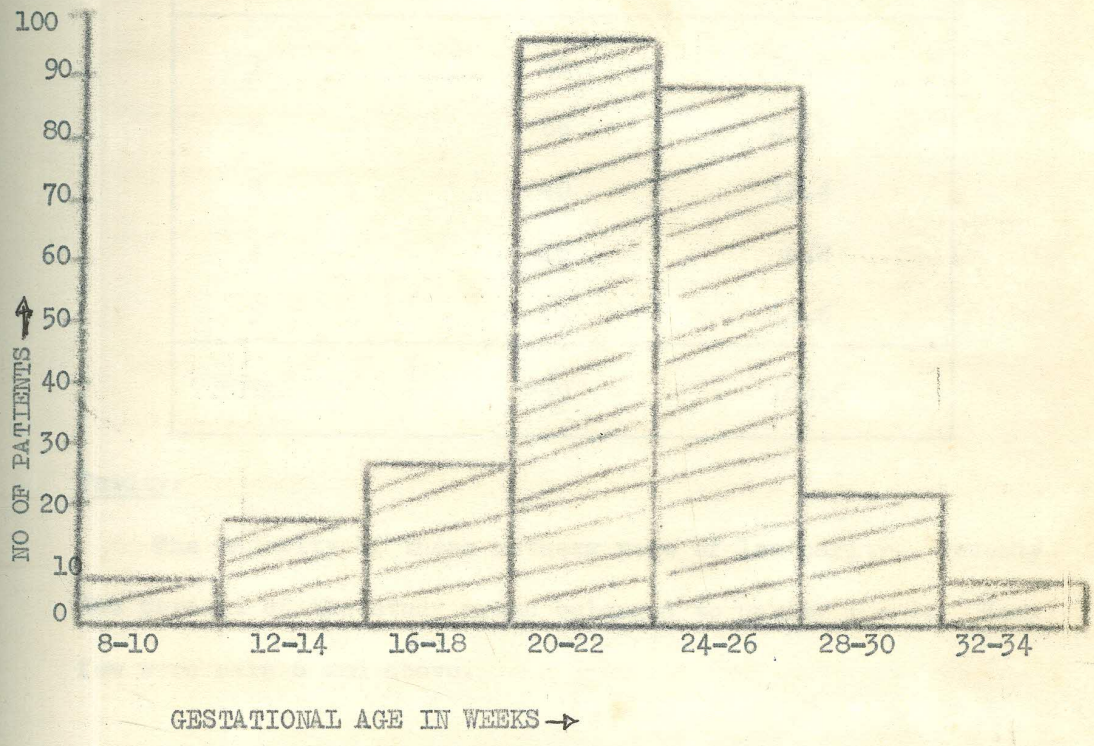
All this information was entered into a questionnaire, (see appendix ix) and the data compiled into a summary sheet. The labour ward and antenatal facilities were utilized.

RESULTS:

Antenatal period:

A total of two hundred and fifty nine consecutive pregnant mothers were seen during the period of study. All had attended the antenatal clinic, either at a peripheral clinic (69.4%), or at Muhimbili Medical Centre (30.6%). The midwives and the attending doctors at the peripheral clinics, are supposed to refer all the patients with previous Caesarean section scars to Muhimbili Medical Centre for antenatal care and delivery. Forty three percent of all patients, were only advised to delivery at Muhimbili and thirty one percent had no advice at all. That means only twenty five percent of the mothers actually got the right advice.

Figure I: THE DISTRIBUTION OF GESTATIONAL AGE AT FIRST VISIT:



All the patients booked the antenatal clinic in good time, with a mean gestational age of 21 weeks (Figure I). The mean gestational age at first visit for the general population is around 28 weeks.

Table I: PARITY DISTRIBUTION OF PATIENTS WITH PREVIOUS CAESAREAN SECTION:

Parity	No.	%
1	83	32.0
2	66	25.5
3	40	15.4
4	16	6.2
5	19	13.6
TOTAL	259	100.0

Parity:

The majority of these mothers were of low parity. Seventy two percent of the study group belonged to parity 1 - 3. Very few were para 6 and above.

Table II: DISTRIBUTION OF PARITY AT THE TIME OF FIRST CAESAREAN SECTION:

Parity	No.	%
0	133	51.4
1+	126	48.6
TOTAL	259	100.0

Most of the pregnant mothers with previous Caesarean section scars, had had their operative deliveries at their first pregnancy.

Table III: SHOWING THE INDICATIONS FOR THE FIRST CAESAREAN SECTION:

Indication	No.	%
Cephalopelvic disproportion (CPD)	126	48.6
Abnormal lie/malpresentation	56	21.6
Antepartum haemorrhage	14	5.4
EPH Gestosis/Eclampsia	12	4.6
Poor progress of labour	12	4.6
Foetal distress	8	3.0
Failed induction	8	3.0
Cord prolapse	8	3.0
Retained second twin	2	0.7
Bad obstetric history	2	0.7
Unknown / wife of a Big Boss / Stewised vagina	11	4.8
TOTAL	259	100.0

Indications for the first Caesarean section:

The majority of the antenatal cards lacked information regarding the indication of the primary Caesarean section. But, on close and careful interrogation the indication for the first Caesarean section was obtained in 95.2% of the patients (Table III). This shows that the midwives or attending doctors did not make specific inquiries for this vital information. From such information cephalopelvic disproportion was the commonest indication for the first Caesarean section, being responsible for 48.6%. Some of this information was unreliable because, it only depended on the patients memory.

Table IV: THE DISTRIBUTION OF THE PATIENTS ACCORDING TO THE NUMBER OF PREVIOUS CAESAREAN SECTION.

No. of previous Caesarean section	No. of patients	%
1	208	79.1
2	46	17.8
3	8	3.1
TOTAL	259	100.0

The number of previous Caesarean section:

Of the patients encountered, 79.1% had one previous Caesarean section, and mainly due to cephalopelvic disproportion. None of the patients had more than three previous Caesarean sections (Table IV).

Method of delivery:

There were three main lines of management:-

a) Elective Caesarean section - was done in patients with two or more previous Caesarean sections, where disproportion was present or strongly suspected or in presence of additional serious abnormality or complication of pregnancy. This was the planned method of delivery in 19.7% (51) of the patients. Four of the patients in the Caesarean section group delivered vaginally. These are the patients who arrived in the labour ward already in an advanced stage of labour, and delivered immediately.

b) Trial of vaginal delivery - was allowed in patients with one previous Caesarean section, in whom there was no disproportion, or any other serious complication or abnormality of delivery and was the planned method in 208 (80.3%) of the patients.

c) Caesarean section in labour - was done when (b) above failed, or in the women who went into labour while awaiting (a) above, or in women who would qualify to be in category (a) but are seen for the first time in labour. One hundred and twelve patients, a Caesarean section rate of 43.2%, had repeat section. Out of these, 5 (4.5%) were classical Caesarean sections. Of the 208 patients subjected to trial of vaginal delivery 61(29.3%) had Caesarean section in labour, and 147(70.7%) had successful vaginal delivery. Two of the vaginal deliveries were assisted by Vacuum Extraction. The reasons for abandoning trial of vaginal delivery were; poor progress of labour, unsuspected disproportion, scar tenderness, and foetal distress. The overall vaginal delivery rate was 56.8%. As one would expect, higher vaginal delivery rates occured in the patients with the so-called non-recurrent indications for the previous Caesarean section. Interestingly 43(34%) of the patients with cephalopelvic disproportion as the indication for the previous Caesarean section, delivered vaginally.

Foetal - Maternal Outcome:

In this series, there were no scar ruptures as determined by exploration of the lower uterine segment immediately following vaginal delivery. Unfortunately the surgeons did not state the condition of the scar at the time of operation. Two hundred and sixty one babies were born, including two sets of twins. There were 9 still births out of which 5 were macerated and 4 were fresh. There were 4 neonatal deaths who weighed 1.6; 2.4; 1.2 and 3.2 Kgs. The last baby was born vaginally, and was severely depressed with an apgar score of 4. The crude perinatal mortality rate was 34.5 per thousand births.

Table V: DISTRIBUTION BY BIRTH WEIGHTS IN GRAMMES:

Birth weight (GM)	No. of babies	%
1001 - 1500	5	1.9
1501 - 2000	11	4.2
2001 - 2500	34	13.0
2501 - 3000	121	46.4
3001 - 3500	67	25.7
3501 - 4000	19	7.3
4001 +	4	1.5
TOTAL	261	100.0

MEAN BIRTH WEIGHT - 2916 GM

Two hundred and forty five (93.9%) of the babies born weighed more than 2,000 grammes; two hundred and twelve (81%) weighed more than 2500 G. The mean birth weight was 2916 grammes; (Table V).

SUMMARY OF RESULTS:

1. All the 259 patients attended the antenatal clinic in good time, with a mean of 21 weeks. Of these 69.4% attended peripheral clinics.
2. Most of the mothers were of low parity - (1 - 3).
3. A majority of the patients had their primary Caesarean section at para 0; the commonest indication being cephalo-pelvic disproportion (CPD).
4. Ninety five percent of the patients could describe the circumstances under which they had the primary Caesarean section. Others knew the indication of their previous Caesarean section by name.

5. Eighty per cent of the patients had only one previous Caesarean section

6. Twenty per cent of the patients had elective Caesarean section, eighty per cent subjected to trial of vaginal delivery, out of whom seventy per cent delivered vaginally. Failure rate was thirty percent. The overall vaginal delivery rate was 56.8%.

7. Most of the vaginal deliveries occured in the non-recurrent indications for the previous Caesarean section

8. Forty per cent of the patients with CPD as the indication for primary Caesarean section delivered vaginally.

9. The foetal and maternal outcome was good.

DISCUSSION AND CONCLUSIONS:

The fact that all the 259 mothers attended the antenatal clinic in good time, indicates the success of health education programmes provided to these mothers. But the antenatal care given at the peripheral clinics was unsatisfactory. All these patients required antenatal care at Muhimbili Consultant Hospital, instead a majority of them were only advised to deliver at Muhimbili. And besides, some of these mothers were given no advice whatsoever. As a result, some of these mothers walked into Muhimbili labour ward, for the first time, in labour. Their mode of delivery had not been planned earlier. Four patients who were receiving antenatal care from Muhimbili had no plan for their delivery too. It is essential to plan for these patients long before time, to avoid serious complications in labour.

The proportion of women with high parity in this group was much smaller than the general hospital population. This may, partly, be explained by the fact that, in women whom all deliveries

are by Caesarean section, sterilization would usually be recommended and carried at the third or fourth section. In most cases the patients gave reasons for having a Caesarean section in their past pregnancies. Looking back in the antenatal cards, this vital information was lacking in most of the cards. This shows that the midwives and the attending doctors do not spend time inquiring for this information. The only limitation of such information is that it can be very unreliable in a few patients but quite reliable in a moajority of them. Alternatively, these patients, after a Caesarean section, should be provided with a discharge card bearing a clear record regarding the previous Caesarean section. Every patient should be instructed to come, with this card, to the antenatal clinic during the next and subsequent pregnancies.

This would eliminate the possible errors encountered with information from interrogation alone. The commonest indication for the primary Caesarean section was cephalopelvic disproportion. Therefore a majority of these mothers would be expected to have a Caesarean section in their first delivery. This proposition is supported by the finding that, in this study group, 51.4% of the women belonged to parity 0, at the time of their first Caesarean section. If this was true, one would expect a higher rate of repeat Caesarean section. But in this study, the repeat Caesarean section rate was only 43%, and therefore, a slightly higher vaginal delivery rate. This finding can be explained by: (a) failure of the patient to state the indication for her previous Caesarean section correctly, because this information relies on the patients history; (b) the diagnosis of cephalopelvic disproportion was probably wrong, and (c) possibly the babies in the present pregnancy were smaller. Cephalopelvic disproportion was

responsible for 48.6% of the primary Caesarean sections. This figure is higher than that obtained by Semiono (1975)[14] in this same hospital. This difference is probably due to the fact that, the present study was prospective, while the study by Semiono was a retrospective one.

From this study, the successful vaginal delivery rate after a Caesarean section is 70.7% with a failure rate of 39.3%. This is in agreement with the rate found by Walton[15], who, doing a similar study in Kenya, came out with a vaginal delivery rate of 73.9%. Review of literature, records a vaginal delivery rate of between 64 - 70%[7] Justin et al. have found that trial of vaginal delivery was successful in 2/3 of the patients. McGarry[11] supports the view that, a substantial number of women (58% in his series) can be saved unnecessary operations. From the present study, it is likely that, the correct selection of patients for trial of scar, with effective antenatal and intra-partum care, will reduce the 39.3% failure rate for the vaginal delivery. Certain guidelines, must therefore, be set for every worker in an antenatal or delivery unit.

Of the 259 patients, 54(20.9%) had had two m or more previous Caesarean sections. These would therefore have required elective Caesarean section. This world wide practice is justified by the findings that with rising numbers of previous Caesarean sections, the chances of successful vaginal delivery diminish, while, the hazards of scar rupture increase. This opinion is shared by many workers. C.A. Klufio et al. (1978)[8] in their study found that of the 106 patients with two previous Caesarean sections admitted in labour, 21.7% delivered vaginally, 73.6% had repeat Caesarean sections, and 4.7% ruptured their scard. During

the study they found that, the rate of scar rupture in patients with one previous Caesarean section was only 3.3%. This difference does not seem to be significant though the view has been supported by many workers. Birnbaum[3] concludes that: multiple scars bear an unfavourable prognosis for vaginal delivery. Donald is quoted as saying "Twice a Caesarean section always a Caesarean section". Because of this, Morewood et al.[12] routinely elected Caesarean section after two previous Caesarean sections. But Armon[1], McGarry[11] are of the opinion that this rule is not absolute. Saldama[13] et al. are of the opinion that the number of previous Caesarean sections or CPD does not rule out vaginal delivery. In fact, Garnet[6]; Kuah[9], Justin et al. state that the number of previous Caesarean sections bears no significancy to the subsequent pregnancy. A survey of literature indicates that the incidence of maternal mortality from a ruptured uterus is not greater than that from elective repeat Caesarean section. Actually the incidence of ruptured uterus in previously scarred patients is but slightly less than the incidence of rupture of unscarred uterus[7]. It is interesting to note that Mason and Williams[10] experimentally showed that the area of uterine incision scar was more resistant to rupture under tension than the intact uterine muscle in guinea pigs and cats. Though in this study, of the patients with two or more previous Caesarean sections admitted in labour, 10(18.5%) delivered vaginally without scar rupture, it is the authors opinion that, such patients should be delivered electively by Caesarean section, until a detailed study indicates otherwise. This is because, in practice, if a scarred uterus ruptures, it does so through the scar tissue. The foetal and maternal outcome

were quite good, not withstanding the irregularities in antenatal management. This shows what can be achieved by even modest improvements in antenatal and intranatal care. A repeat Caesarean section rate similar to that of the united states (99%)[7], does not seem to be rational or scientific if applied in developing countries. If every patient with lower segment uterine scar was not necessarily subjected to surgical procedure, the following would be the benefits:

a) there would be a decrease, in post operative and post partum morbidity, anaesthetic complications, wound infections and post operative discomfort ;

b) there would be a faster recovery period with early participation to infant care ;

c) there would be a shorter length of hospital stay resulting in significant financial saving. Trial of labour for uncomplicated patient with a lower segment Caesarean section scar is safe and indicated.

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QUESTIONNAIRE PREVIOUS C/S.

I.P. No: .....

Name: ..... Age: ..... Parity (a) Now....

(b) At C/S...

2. Marital Status MARRIED/UNMARRIED

3. Booking (a) Gestation: ..... (b) Clinic: .....

(c) Unbooked: .....

4. Height .....

5. Previous C/S: (a) No. ..... (b) Indications .....

(c) Complications .....

(i) Intrapartum .....

(ii) Postpartum .....

6. Delivery: (a) Planned: ..... (b) Actual .....

(c) If C/S Reason/s: .....

7. Outcome: (a) SVD: .....

(b) Foetus: ..... (i) Alive: ..... Apgar:.....

Wt. ..... (ii) Fetal death reason:.....

.....

(c) Scar rupture: ..... (d) Time: .....

(e) Maternal death: .....

Reason: .....

(f) Any antenatal advice:

A CASE OF HYDATIDFORM MOLE: EVACUATION AND CURETTAGE:

Name: Miss E.K. Age: 22 year old, I.P. No: 321765

Tribe: Mhehe Religion: Christian

Address: Kinondoni, Dar es Salaam

Admitted: 15.9.1982

Discharged: 21.10.1982

SUMMARY:

Miss E.K. was a young primigravida with a history of 4 months amenorrhoea accompanied with signs and symptoms of pregnancy. This was followed by vaginal bleeding and colicky abdominal pain. The uterus was found to be soft and bigger than dates. A plain abdominal X-ray and urinary HCG titres were suggestive of a hydatid form mole. Curettage was done after medical evacuation of the mole. The postoperative period was uneventiful. The incidence, and management of hydatidform mole are discussed.

PART III: GYNAECOLOGIC SECTION.

HISTORY OF PRESENT ILLNESS:

The patient had an amenorrhoea for 4 months. This period was accompanied with nausea and vomiting every morning, and vaginal bleeding. The vomitus was small in amount. She also experienced breast fullness and discomfort, with increasing tiredness. No foetal movements were felt. The vaginal bleeding had been irregular, with fresh blood for 2 days. The amount had been moderate but, was increasing. The lower abdominal pain had been severe colicky and progressive. She had no fever, headache or dizziness. She had not experienced any cough or difficulty in breathing. She was opening her bowel normally and had no urinary symptoms.

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OBSTETRIC AND GYNAECOLOGICAL HISTORY:

She had her menarche at 15 years and her menses were lasting 3 - 4 days every 28 days. They were regular and of normal flow. She had mild dysmenorrhoea. She had no dyspareunea or abnormal vaginal bleeding. She had not used any contraceptives. Her last normal menstrual period had started on 19th June, 1982. She was a primigravidae.

FAMILY AND SOCIAL HISTORY:

She was a third year nursing student at Songea. She was single. She had not been in contact with anybody suffering from pulmonary tuberculosis. Nobody in the family had suffered from diabetes mellitus, hypertension or cardiac disease.

PAST MEDICAL HISTORY:

She had not suffered from any major illness.

PHYSICAL EXAMINATION:

She was a well nourished young girl with a good general condition. She was not pale, had no fever and she was not dehydrated. She had no lymphadenopathy and the thyroid gland, mouth and throat werenormal. The breasts were well developed with hyperpigmentation of the areolar tissue and congestion. The nipples were normal. There were no breast lumps.

Cardiovascular system: The pulse rate was 82 per minute, regular and of normal volume. The blood pressure was 110/70 mm of mercury. The heart sounds and size were normal.

Respiratory system: Clinically the lung fields were clear, with good air entry. There was no dullness on percusion.

ABDOMINAL EXAMINATION:

There was a uniform suprapubic enlargement of the abdomen. The liver, spleen and kidneys were not enlarged. Both renal angles were normal. There was no tenderness or guarding.

The uterus was soft, non-tender, and equivalent to 20 weeks of gestation; 4 weeks bigger than dates. The foetal parts were not palpable, nor was the foetus ballotable. The foetal heart was not heard.

VAGINAL EXAMINATION:

There was slight vaginal bleeding, but the vagina looked normal. All the fornices were free. The cervix looked healthy with some blood issuing from the os which was closed. Bimanual palpation confirmed the uterus to be equivalent to 20 weeks of gestation, and it was freely mobile and soft. A small (2 - 2.5 cm) right tubal ovarian mass was palpable. This was non-tender and mobile.

DIFFERENTIAL DIAGNOSIS: 1. Threatened abortion

2. Molar pregnancy

Because of the suspicion of molar pregnancy, an effort was made to rule it out. The patient was put on bed rest and the following investigations ordered.

1. Blood - Haemoglobin 10.2 G/dl
2. Urine - 24 hours human chorionic gonadotrophin - 100.0001.u
   - Negative for albumin and sugar
3. Radiography - Plain abdominal - No foetal skeleton
   - Chest X-ray - No pulmonary lesions
4. Echoscopy - No gestational sac was demonstrable; Hail storm appearance was demonstrable.

By the second hospitalization day the patient was still having the lower abdominal pain and vaginal bleeding. All the other findings were essentially the same, except that the cervix was now 2 cm dilated.

DIAGNOSIS: Aborting Hydatid form mole

In view of this diagnosis, the patient was planned for medical

induction with 10.1.u of syntocinon in 500 mls of 5% dextrose at escalating rates of 10, 20, 30 and 60 drops per minute every 15 minutes. Three units of blood were available.

PROGRESS OF THE ABORTION:

The contractions continued being stronger until 6 hours later the patient aborted a grape like structure. She had no severe post abortal vaginal bleeding. The syntocinon was continued till the vaginal bleeding greatly decreased. The aborted mole was taken for histology. The patient was therefore prepared for curettage, which was done on the following day. The consent was obtained and the perineum shaved and cleaned. 17th September 1982 at 11.a.m the patient was taken to theatre.

OPERATION: Curettage

ANAESTHESIA: Ketamine 100 mg, valium 10 mg and Atropine 0.6mg were given intravenously.

PROCEDURE:

The patient was placed in lithotomy position, the perineum cleaned with hibitane solution and drapped. The bladder was catheterized and 250 mls of clear urine were obtained. Digital examination revealed an enlarged uterus equivalent to 14 weeks of pregnancy, and the cervix 6 cm dilated with some products of conception in the cervical os. The products were first removed using an ovum forceps, followed by a large sharp curettage until the uterus was empty. There was minimal bleeding. Ergometrine 0.5 mg was given intravenously after completion of the procedure. The blood loss was 200 mls. Two units of blood were given intra-operatively.

POST OPERATIVE PERIOD:

1. The blood pressure, pulse and respiratory rates were observed one hourly, and remained normal.
2. Vaginal bleeding was observed throughout the post-operative period.
3. Weekly determination of human chorionic gonadotrophins in 24 hour urine sample were done.

18th September 1982: On the first postoperative day. The patient had no complaints except for slight vaginal spotting. She was not pale and was afebrile. There was no jaundice. The cardiorespiratory systems were normal. The uterus was well contracted, and was non-tender. No active vaginal bleeding was observed.

23rd September, 1982: First post operative week: She had no complaints. Her general condition was good. The cardiorespiratory and central nervous systems were normal. She had neither vaginal deposits nor bleeding.

The 24 hours urinary HCG level was between 10,000 - 25,000 i.u/l.

30th September, 1982: The second post operative week - She remained normal. The 24 hour urinary HCG levels were between 2,500 - 10,000. After this the urinary HCG levels continued to be negative, and her general condition remained normal. On the fifth post operative week, the patient was found to have no complaints. Her general condition was good, she had no fever or jaundice. Her haemoglobin level was 11 G/dl. The cardiorespiratory and central nervous systems were normal. The abdomen was scaphoid and the uterus was not palpable. On vaginal examination the vulva and vagina looked normal. The cervix was closed. The uterus was firm normal sized, mobile and non-tender. There were no residue ovarian cysts and no vaginal bleeding. A repeat chest X-ray showed no pulmonary deposits. The patient was therefore discharged on 21st

October, 1982 - the fifth post operative week with the following instructions:

a) She was advised not to conceive for at least 1 year and was therefore given the combined pill oral contraceptives.

b) She was told to attend the gynaecology clinic weekly for one month, then every month for 3 months, then every three months for 6 months, and thereafter 6 monthly for one year.

She paid three visits all of which were uneventful.

On her 4th visit 26th November, 1982, she reported to have had her menses on 20th November 1982 for 4 days.

The pregnancy test was negative throughout these visits. She had no respiratory or neurological signs. The vulva and the vagina were normal and no abdominal masses. She continued with follow up.

COMMENT:

Trophblastic diseases originate from the chorion, either of the placenta (gestational trophoblastic diseases) or from the trophoblast of the ovary or testis (non gestational). The hydatid fom mole is the commonest trophoblastic disease. Despite vast advancement in the diagnosis and treatment the derivation of hydatid form mole is still a matter of inference and some conjecture. Many abortuses show cystic alterations similar to those in the mole - a condition known as hydatidfom mole degeneration. About 90% of the moles are 46 xx. Other moles are 46 xy or mosaics.

The incidence of hydatidfom mole is difficult to determine due to the variations in nomenclature. One of the nomenclatures adopted in Singapore in 1966 categorizes the gestational trophoblastic diseases into:-

a) Hydatifom mole

b) Villous chorionic carcinoma (replacing chorion carcinoma destruens) and

c) Avillous chorion carcinoma.

Hydatifom mole is commonly found in the reproductive age group, and low social economic status, as with this patient who was a young nursing student.

About 15 - 20% of hydatifom mole turn malignant. The fact that this girl had a molar pregnancy predisposes her to the risk of chorion carcinoma by 500 - 1,000 fold compared to a normal term pregnancy.

The history of absence of foetal movements was suggestive of hydatidfom mole at this gestation. Similarly, was the absence of foetal skeletal tissue on X-rays. But commonly, this condition occurs at gestations of 10 - 13 weeks, which is before the appearance of foetal movements and foetal skeleton demonstrable by X-rays. The finding of a uterus which is larger than the dates is not absolute, because it is only found in 50 - 75% of patients. This patient did not have the signs and symptoms of hyperthyroidism, tachycardia and high temperature. If the temperature is found to be raised in these patients, the cause could be either a hyperthyroid state, or trophoblastic tissue necrosis. The finding of a unilateral ovarian cyst in this patient was an unusual finding. ?More commonly (25 - 50%) the ovarian enlargement is bilateral. In investigating these patients, non-invasive or invasive methods can be used:

(a) Non-invasive - A plain abdominal X-ray may be wrongly interpreted in the rare condition where a hydatifom mole may coexist with a foetus. Hormonal assays in urine are less reliable than serum assays because of their diurnal variation. False

negative results may occur due to death of the mole, the mole being in poor contact with maternal circulation, or the mole producing hormones below the minimal effective dose for pregnancy test. False positive results may occur in a normal woman at 14th day of cycle, when the leutenizing and follicle stimulating hormones are at their peak levels, or in a post menopausal woman. However, about 70% of molar pregnancies exhibit diagnostic values of HCG on a single assay. Others may require repeat assays, or combination with other investigations to establish diagnosis. While high levels are diagnostic, no level is pathognomonic, and there should always be a confirmatory test.

The pregnancy tests used in this centre do not go down to the normal levels of leutenizing hormone or lower levels detectable by urinary HCG, and are not specific for HCG. Radioimmunoassay is the most specific test for B submit. It can be sensitive down to the levels of 3.1.u/l. The radioreceptor assay is less sensitive (up to 30.1.u/l). These titres become negative within 4 - 6 weeks.

The abnormal patterns include - <u>persistant</u> high levels, a <u>secondary rise</u> or <u>plateauing</u> of the levels. The ultrasound B scan is the most reliable diagnostic method, but conditions like septic abortion, missed abortion or fibromyomata may mimick a mole at ultrasound.

(b) <u>Invasive methods</u> - Uterine sounding for 11 cm without resistance was first described by Acosta-Seson (in 1958) but, perforation of the uterus is a real danger. Amniography can be used to demonstrate the soap bubble appearance" where sophisticated instruments are not available. But it is necessary to aspirate the uterine contents first before the procedure. If liquor is

aspirated, the procedure should be abandoned. Pelvic arteriography is a popular method and can be used to distinguish between malignant and benign conditions of the trophoblast. This method is probably too aggressive for routine diagnosis of molar pregnancy, but very useful for diagnosis of extensive chorioncarcinoma. The method however, does not rule out extragenital deposits, nor is a normal arteriogram incompatible with chorion carcinoma.

Generally invasive methods have been superseded by the non-invasive techniques. The treatment of hydatidfom mole depends on the age, parity, blood group and ovarian enlargement. There is increased malignancy rate after the age of forty, in blood group A patients, and bilateral ovarian enlargement. Evacuation of the mole is the treatment of choice in young low parity females.

This can be achieved by suction curettage under oxytocic cover, (regardless of the size of the uterus) or the traditional medical induction with syntocinon. The prostaglandins are not popular because of the fear of associated higher rate of malignancy.

Hysterotomy is obsolete because it is accompanied with higher post molar malignancy. Total abdominal hysterectomy is indicated in an old multiparous woman. Though it reduces malignancy, it does not eliminate its occurance completely. There is a 20% chances of malignancy despite the operation. It therefore does not reduce the need for a careful follow up. It is actually doubtful if it justfies the risk of morbidity and mortality accompanying any major surgical procedure. Whether routine curettage should be done, remains controversial. Customary it should be done 5 - 7 days after evacuation of the mole. Other authors suggest curettage only if bleeding continues for more than 14 days. The advocates for routine curettage, do it to determine the presence of residue trophobalstic tissue, and diagnosis of chorion carcinoma. The

question when should curettage be done remains unanswered. A repeat curettage is indicated if there is a persistant vaginal bleeding or HCG titres. In this patient a sharp curettage was done 2 days later. The use of prophylactic chemotherapy is also contraversial. Goldstein is an advocate of prophylactic chemotherapy, in high risk patients. It is my opinion that prescribing toxic and probably mutagenic drugs to 80 - 85% of patients who will never have required it is unjustified. Besides, prophylactic chemotherapy may induce resistance when the patients develop actual chorion carcinoma.

It is a custom to deffer pregnancy for one year. This is because any HCG rise may be difficult to interprete. However, with modern methods of visualizing the gestational sac as early as 5 - 6 weeks, it is perhaps not necessary to restrict pregnancy for more than 6 months provided the HCG levels have fallen satisfactorily. The choice of the type of contraceptive is also controversial. An intrauterine device may cause irregular bleeding which may confuse issues at follow up. Oral contraceptives are most suitable because:

(a) of their contraceptive efficacy

(b) they supress the pituitary leuternizing hormones and the follicle stimulating hormones, which may cross react with HCG assays.

This would therefore be especially useful where radioimmunoassays are not available. On the other hand Bags (1980) found that the use of oral contraceptives increased the number of patients who required chemotherapy. Stone found increased malignancy rate in patients who were started on oral contraceptives before complete remission in HCG levels.

In view of the above findings it would appear that the barrier method is the best. But the efficacy is lower than any of the above. Thus this patient was put on oral contraceptives.

RUPTURED TUBAL PREGNANCY: SALPINGECTOMY DONE.

Name: M.R. Age: 27 years old, I.P. No: 291579

Tribe: Mzaramo Address: Mwananyamala B, Dar es Salaam

Dates: Admission: 13.5.1982

Operation: 13.5.1982

Discharge: 22.5.1982.

SUMMARY:

The patient was admitted as an emergency through the casualty with a history of 6 weeks amenorrhoea, followed by sudden severe lower abdominal pain with slight vaginal bleeding. Physical examination revealed shock and haemoperitoneum due to a ruptured tubal pregnancy which was confirmed at laparatomy. Auto-transfusion and right salpingectomy were done. The patient recovered uneventfully. She was discharged on the 9th hospitalization day. Aetiology, diagnosis and management of tubal pregnancy are discussed.

HISTORY OF PRESENT ILLNESS:

The patient was admitted with a history of amenorrhoea for 6 weeks. This was accompanied with nausea, tiredness and breast discomfort. 5 hours before admission the patient had experienced a sudden lower abdominal pain, which was severe persistant radiating to the shoulder region. There was no area of localization. This was followed by a persistant slight dark brown vaginal bleeding, with headache and dizziness. She had neither fainted nor had vaginal spotting throughout this period of amenorrhoea. She had had no fever and no frequency, urgency or dysuria. Bowel habits were normal.

GYNAECOLOGY HISTORY:

She had her menarche at 15 years of age. Her menses were lasting 5 - 7 days every 26 - 30 days. The flow was normal but the menses were irregular. She had neither intermenstrual, nor

contact bleeding. She had experienced dysmenorrhoea one day before menstruation. She had no dyspareunea. She could not remember her last normal menstrual period well, but she thought it was in mid March 1982. She was not using any form of contraceptives.

OBSTETRIC HISTORY:

She was para 5 + 0 with all children living. She had had no anterpartum, intrapartum or post partum problems in the first four dliveries. In her fifth pregnancy, one year ago, she had fever, severe lower abdominal pains and vaginal discharge, four days after delivery. She was admitted at Muhimbili Maternity wing, where she was treated with injections and tablets for five days. She recovered and was discharged on tablets.

PAST MEDICAL HISTORY:

This was her second admission. The first admission was after the last delivery as described above. She had had no ectopic pregnancy or abdominal operations in the past. She had no history of venerial disease after the pueperal complication. She had not been in contact with anybody suferring from pulmonary tuberculosis.

SOCIAL AND FAMILY HISTORY.

She was a housewife, married for the past 10 years and staying with her husband at Mwananyamala B. She had had no formal education. There was no family history of diabetes mellitus, hypertension, cardiac or pulmonary tuberculosis.

PHYSICAL EXAMINATION.

General examination - The patient was restless in severe pain, and very pale (the palor was not corresponding with the amount of vaginal bleeding). She was afebrile. She had neither oedema,

jaundice nor lymphadenopathy. The breasts were normal looking.

Cardiovascular system: The extrimities were cold and clamy. The pulse rate was 120 per minute, feeble and irregular. The systolic blood pressure was about 20 mm mercury, the diastolic blood pressure was unrecordable. The heart sounds were heard and she had a tripple rythm. There was neither cardiomegally nor murmurs.

Respiratory system: The lung fields were clear, and the chest was symetrical.

ABDOMINAL EXAMINATION:

There was slight suprapubic distension. Cullens sign was negative. The liver, spleen and both kidneys were not palpable. Both renal angles were non-tender. Shifting dullness was demonstrated. There was also an area of persistent dullness over the right hypogastric region. There was guarding and severe tenderness over the suprapubic area and there was rebound tenderness over the same area.

VAGINAL EXAMINATION.

The vulva and vagina were normal, The cervix was healthy, soft, issuing dark brown blood from its os. Cervical excitation test was positive. There was a right adnexial mass. The fornices were all normal. It was difficult to appreciate the uterus because of severe suprapubic tenderness.

DIAGNOSIS: Ruptured Right Tubal Pregnancy.

In view of the above findings the patient was rescuscitated and prepared for an emergency laparatomy.

INVESTIGATIONS:

1. Four units of blood group A Rh (D) positive were crossmatched.
2. Urine was tested for sugar and protein, and was negative.

PREOPERATIVE TREATMENT.

(a) General: (i) Consent was obtained

(ii) Ryles tube was passed

(iii) An indwelling Forleys catheter was passed

(iv) The abdomen was cleansed.

(b) Fluids: (i) 500 mls of plasmagel were run fast using an intravenous drip with a cannular, this was followed by another 500 mls of plasmagel while awaiting blood and operation.

(c) Drugs: (i) Atropine 0.6 mg intramuscularly were given

(ii) Intramuscular injection of Morphia 10 mg was given.

(iii) An intravenous injection of Hydrocortisone 200mg was given at 4 hourly intervals.

The patient was taken to the operating theatre immediately.

OPERATION: Laparatomy.

Anaesthesia: Ketalar 100 mg intravenously was given and scoline 100 mg intravenously, was also given.

Intubation was done. The patient was maintained on oxygen.

PROCEDURE:

The abdomen was opened up through a subumbilical midline incision. On incising the peritoneum about 4 litres of bright red non infected blood was found. Using a laddle, blood was collected and poured into a sterile blood collecting bottle containing 120 mls of 3.4% Sodium Citrate through a funnel covered with three layers of sterile gauze as filters, 3 units of blood was autotransfused. The rest of blood and clots were removed. Theuterus and tubes were visualized. A ruptured right tubal pregnancy was seen. The left tube, both ovaries and the appendix were healthy. Using two Kocher's forceps applied on both sides of the ruptured ectopic, the

tube, together with the ectopic pregnancy were excised "en block". The excised ends were transfixed separately with catgut No. 2. The right ovary was left. Further inspection revealed a lot of adhesions in the pouch of Douglas. In the excised portion of the tubes, there were blood clots and no embryo was found. All clots and blood were removed from the abdominal cavity. The abdominal packs were removed when the haemostasis was ascertained. The abdomen was closed in layers, when the swab pack and instrument counts were pronounced correct. Matress sutures were applied to the skin. The total blood loss was estimated at 4½ litres.

POST OPERATIVE ORDERS:

(a) General - Blood pressure, pulse and respiratory rate were charted ½ hourly for 2 hours then 1 hourly for 4 hours, then 2 hourly for 6 hours and 4 hourly thereafter.

- The temperature was charted every four hours.
- A twenty four hour input and output chart was kept.

(b) Fluids: Three units of blood were transfused and followed by Dextrose saline 1½ litres all given per 24 hours. Dextrose saline 3 L/24 hours was continued for 36 hours; after which the bowel sounds were heard.

(c) Drugs:

1. Pethidine, intramuscular injection, 100 mg was given every 6 hours for 24 hours.
2. Crystalline Penicillin, 2 m.u intravenously was given 6 hourly for 24 hours, then Procaine Penicillin Fortified 1.2 m.u was given daily for 5 days intramuscularly.
3. Chloramphenicol 500 mg intravenous injection was given 6 hourly till 3rd day when she could take orally 500 mg 8 hourly for 5 days.

POST OPERATIVE PROGRESS:

14th May, 1982: The first post operative day:

The general condition was better. She was afebrile, moderately anaemic. The blood pressure, pulse and chest remained normal. The abdomen was slightly distended but soft, and there were no bowel sounds.

16th May, 1982: The third post operative day:

The general condition was good. The patient had passed flatus. The blood pressure and pulse remained normal. She was afebrile moderately anaemic. Haemoglobin = 7.8 G%. The abdomen was soft, and less distended now. The bowel sounds were audible. So the patient was put out of drip and started oral feeds. She was encouraged to seat up.

20th May, 1982: The 7th post operative day:

The alternate stitches were removed, and completed on the 8th post operative day.

On 22nd May, 1982: The patient had recovered well and was discharged on oral ferrous sulphate and folic acid. She was given an appointment to be seen at the Gynaecology outpatient in six weeks time.

FOLLOW UP:

She was seen at the clinic six weeks after discharge. She was in a very good condition. She was not pale. (Haemoglobin 10.2 G%). The scar was well healed. The vaginal examination did not reveal any abnormalities.

Pathology report was available: Showed a ruptured Isthmal portion of the fallopian tube together with blood clots.

Microscopy: A ruptured tubal pregnancy with decidual and chorionic villi. No tuberculous lesions. The patient was therefore discharged from the clinic.

COMMENT:

Ectopic pregnancy means implantation of a fertilized ovum in a site other than the normal uterine cavity. It is not synonymous with extrauterine pregnancy which does not preclude implantation in the rudimentary horn of a bicornuate uterus.

Ruptured ectopic gestation is the commonest emergency among women in the tropics (Stewart 1967). In Muhimbili Medical Centre, in the year 1979 - 1980, it was responsible for 1.3% of all admissions, and about 24% of all gynaecologic operations. The commonest cause of ectopic pregnancy in the tropics is pelvic infection. The evidence for pelvic infection in this patient was the history of having suferred from a disease simulating puerperal sepsis in her last pregnancy, and, there was evidence of inflammation at operation. On the other hand, finding the tubal pregnancy on the right tube is in agreement with other findings elsewhere. The explanation for the more frequent involvement of the right than the left tube being, the proximity of this tube to the appendix. The history and physical examination were so typical that other clinical manouvres like culdocentesis, abdominal paracentecis, EUA were uncessary.

Intraoperatively autotransfusion was done. This procedure has a place in the tropics, where many patients come in a bad condition, and blood for transfusion is scarce. So that this procedure does not only provide readily available blood, but it is also fresh and does not need crossmatching. Also there is fear for blood transfusion reaction or transmission of disease from the donors. But before autotransfusion is done the following precautions must be under taken.

a) It must be made sure that the blood is not haemolysed, by observing the colour; and, by centrifugation to see a separate

layer of red blood cells from serum.

b) It must not be infected.

c) It must not be mixed with amniotic fluid.

There are two main modalities of surgical treatment of ectopic pregnancy. The "Conservative" management, (stripping and salpingotomy) was not done because this was already ruptured, and even if it was not ruptured, ectopic recurrence in such tubes have been found frequently, after conservative treatment.

The second line of management could have been salpingectomy or salpingoophorectomy. Evidence does not clearly establish an advantage of removing a normal ovary, and it appears that conservative management, or salpingoophorectomy may be indicated in those women who already have low fertility potential. This patient was a mother of five and all were living. Thus salpingectomy alone was done. After treatment fertility is retained in only less than half of the patients, out of which only a third will carry their pregnancy to term. The risk of recurrent ectopic pregnancy increases by 30 - 50 times after one episode. Though we may not lower the incidence of ectopic pregnancy, the morbidity and mortality can be reduced by diagnostic acumen and energetic surgical skill, as was the case in this patient.

INCOMPLETE ABORTION: EVACUATION OF PRODUCTS OF CONCEPTION DONE:

Name: R.C. Age: 22 years, Tribe: Mmanda Reg. No: 307020

Address: Ilala Quarters, Dar es Salaam

Occupation: A Primary School Teacher

Date: Admission: 4.9.1982

Discharge: 6.9.1982.

SUMMARY:

A 22 year old primigravida admitted through the casualty at 4.00 p.m. on 4th September 1982 with history of 2 months amenorrhoea. She complained of lower abdominal pain which 5 hours later was followed by vaginal bleeding with clots. On examination she was found to have a dilated cervix with products of conception in the cervical canal. Diagnosis of incomplete abortion was made. The aetiology diagnosis, incidence and management of incomplete abortion are discussed.

HISTORY OF PRESENT ILLNESS:

The patient had had an amenorrhoea of two months associated with tiredness, nausea, breast discomfort and frequency of urination. Three days prior to admission, she started having a gradual lower abdominal pain which was colicky, progressive and radiating to the back. 5 hours later she started having vaginal bleeding of fresh blood with clots which was also progressive, and of moderate amount.

She had had no fevers, and no urinary symptoms. She gave no history of straineous exercise, recent travel or coitus prior to onset of these problems. She had neither emotional upset nor attempt at instrumental interference. She had no diarrhoeal diseases. There was no history of night sweats, chronic cough or deblitating disease. She had had no rashes or abdominal masses; and gave no history of venerial disease.

GYNAECOLOGIC AND OBSTETRIC HISTORY:

She had her menarche at 18 years, with her menses lasting 3 - 4 days every 28 days. The cycles were regular and of normal flow. She had premenstrual dysmenorrhoea of one day before. She had neither intermenstrual bleeding, nor vaginal discharge. And she experienced no dyspariunea. Her last normal menstrual period started on 28th July, 1982 and lasted 4 days. She was not on any contraceptives.

This was her first pregnancy.

PAST MEDICAL AND SURGICAL HISTORY:

This was her first admission. She had had no instrumentation or operation on her genital tract. She had never suffered from renal, heart disease or diabetes mellitus.

SOCIAL AND FAMILY HISTORY:

She was a primary school teacher, single and was staying alone. She had two boyfriends. And she needed a child. She was neither an alcohol drinker nor a smoker or drug addict. There was no family history of hypertension, cardiac disease or diabetes mellitus. Her mother had suffered from pulmonary tuberculosis two years before and was treated.

PHYSICAL EXAMINATION:

She was a healthy young lady, with blood staining her underpants, and thighs. She was clinically pale, afebrile and not jaundiced. She had neither septic foci on the oro-pharynx, nor cervical lymphadenopathy.

Cardiovascular system: Her blood pressure was 100/70 with a pulse rate of 96 per minute, regular and of normal volume. The heart size and sounds were normal. There were no murmurs.

Respiratory: The chest was symetrical. All lung fields were normal.

ABDOMINAL EXAMINATION:

The abdomen was scaphoid, and there were neither scars nor stria. The liver, spleen, and both kidneys were not enlarged. Both renal angles were non-tender.

The suprapubic area was moderately tender, but rebound tenderness was not elicited, and there was no guarding. The uterus was not palpable.

VAGINAL EXAMINATION:

This was done aseptically, after emptying the bladder. The vulva and vagina were soiled with blood. The vagina had clots but no evidence of trauma. The cervix was healthy, no evidence of traumatic injury, but products of conception were seen through the cervical os. The cervix was thick soft 2.5 cm. open, and products of conception were felt. The fornices were free. The uterus was bulky 8 - 10 weeks size and non-tender; anterveted anteflexed. No adnexial masses were felt.

Gloves were stained with fresh blood.

DIAGNOSIS: Incomplete abortion.

PLAN: Evacuation of the contents of the uterus.

INVESTIGATIONS: Only emergency investigations were done:

1. Blood grouping and cross-match - O Rh (D) positive 500 mls. of blood was available.
2. Haemoglobin - 8.7 gm/dl.
3. Urine: No sugar no albumin

RESCUSCITATION:

1. Intravenous normal saline was started
2. 0.5 mg of ergometrine was given to minimize bleeding before operation
3. Atropine 0.6 mg were given intramuscularly.

OPERATION: This was done in the sideroom of the ward under 100 mg. of pethidine and 10 mg. of valium given intravenously.

POSITION: The patient was put on lithotomy position.

PROCEDURE: The perineum and vagina were cleansed with 1% chlorhexidine (hibitane) solution. After draping the bladder was emptied of 160 mls of clear urine. Digital vaginal examination was done again. The findings were essentially the same. An Auvards speculum was gently introduced to enable visualization of the vagina and cervix. The anterior lip of the cervix was grasped with a Volsellum forceps, and pulled foward. There was no need to dilate the cervix because it was already open. By means of an ovum forceps, the products of conception were removed together with the membranes. Then a digital exploration of the uterine cavity was done. The uterine cavity was curetted systematically. There were a few more products in the cavity, though most areas were clear. The bleeding was now minimal, the uterus was found to contract and the cervix was gripping on the curette. The products of conception were taken for histology. The total blood loss was 80 mls.

POST OPERATIVE:

1. Ergometrine 0.5 mg intramuscular injection was given.
2. Intravenous drip was continued while awaiting blood. She was transfused with 500 mls of blood.
3. Blood pressure 100/60 mmHg and pulse rate of 98 per minute, regular and of normal volume.
4. Blood pressure, pulse and respiratory rates were charted ½ hourly for 2 hours, then 2 hourly for 4 hours, than 4 hrly.
5. Vaginal bleeding was checked every time, the vital signs were being checked.

1st Post operative day:

The patient was up and about. Her general condition was good. There was minimal vaginal bleeding. The uterus was well contracted. The haemoglobin was 8.9 G%. The blood pressure was 100/70, the pulse was 90 per minute, and of good volume. She was discharged on the second post operative day and was put on ferrous sulphate and folic acid. She was to come back four weeks later at the gynaecology outpatient department.

She was seen four weeks later at the outpatient clinic. Her general condition was good, her haemoglobin was 10 gm%. The blood pressure was 100/70 mmHg. the pulse rate was 78 per minute regular and of normal volume. The abdomen was soft and the uterus was not palpable. The vulva and vagina were normal. The cervix and uterus were normal. There were no adnexial masses. She was therefore discharged from the clinic.

COMMENT:

Abortion is interruption of pregnancy before viability i.e. before 28 weeks of gestation. The definition is narrowing because of ability to rear the foetus as early as the 20th week of pregnancy. Others restrict the definition to 12 weeks, and after that the term "miscarriage" is used because the placenta has already been formed.

Stewart Taylor estimated that 15 - 20% of pregnancies terminate into spontaneous abortion prior to 20 weeks of gestation. This may be a gross underestimation because:-

(a) very early abortions may be taken as delayed menses;

(b) some abortions may be so asymptomatic that the patient may not seek medical attention, and

(c) in the tropics, the influence of local beliefs may hinder seeking attention.

Abortion is a very common problem in Muhimbili, being responsible for more than 50% of all gynaecologic admissions, and, about 70% of all gynaecologic operations.

Most abortions occur in the first 8 weeks of pregnancy and relatively few abortions occur after the first trimester. This patient falls within the generalization. The usual course of abortion is amenorrhoea followed by vaginal bleeding, then abdominal pain. Both symptoms are progressive in severity. They abate when the abortion is complete or progress until therapy is instituted as in incomplete abortion.

The history, in this patient of amenorrhoea, abdominal pain followed by vaginal bleeding called in for one to vigorously rule out a ruptured ectopic pregnancy. Many things were, however, against this - she had neither severe anaemia nor shock, though, these can occur in abortions which have been neglected, there was a heavy vaginal bleeding with clots; there was neither guarding rebound tenderness, nor evidence of fluid in the peritoneal cavity; the cervix was dilated, and the products of conception were vividly visible, and the cervix was non-tender on rocking it towards one side. Further, the pouch of Douglas was free and the uterine size corresponded with dates.

Though possible aetiological factors were sort from history and physical examination these are only found in 38% of abortions. The fact that she was a single girl, placed her into a possible candidate for attempted instrumental termination of pregnancy. Such history, as usual, was not subdued and there was no evidence clinically. She had no history of instrumentation in the past.

Because there was no aetiologic stigmata, this was a "sponteneous abortion". A study by Herting and Livingstone showed that 61.7% of sponteneous abortions had defects or abnormalities of the ovum. Similar findings were reported by Mall, Carr, Kerr and Rashad. Further, in his study, Jorgen G. Lenn Lauristen concluded that the age of abortions and frequency of chromosomal abnormality were invesely related, being very high in early pregnancies. Whether this early abortion was due to congenital abnormality of the ovum, embryo or not is a matter of conjecture.

BARTHOLIN'S ABSCESS: MARSUPIALISATION:

Name: Miss L.K., A 15 year old Malawian I.P.N. 290881

Address: Tandika Flats, Dar es Salaam.

Dates: Admission: 6.5.1982

Discharge: 11.5.1982

SUMMARY:

Miss L.K. a 15 year old school girl was admitted through the casualty with a history of a left vulval swelling of 7 days duration. On examination she was found to have a left Bartholin's abscess. Marsupialization was done. A pus swab revealed staphylococci aureus, sensitive to Tetracycline. She recovered well and was discharged home on tetracycline.

Aetiology and management of a Bartholin's abscess are discussed.

HISTORY OF PRESENT ILLNESS:

The girl had been well until 7 days prior to admission, when she started having a painful left labial swelling, which was gradual in onset. Both the pain and swelling had been progressive until two days prior to admission, when she started having difficulties in walking and seating. The pain was localized and she had not had any vaginal discharge. She had not had sexual intercourse and there was no history of trauma around that region. She had had three injections at Temeke dispensary without improvement. Micturation and bowel habits were normal.

GYNAECOLOGICAL HISTORY:

She had her menarche at 13 years, her menses lasted 3 - 5 days w every 28 days, and were regular and of normal flow. She had no dysmenorrhoea or dyspariunea. Neither had she any vaginal bleeding nor abnormal vaginal discharge. She was not on any contraceptives.

PAST MEDICAL HISTORY:

This was her first admission, and she had not suffered from any vulval ulcers. She had no history of diabetes mellitus, cardiac or hypertensive disease.

SOCIAL AND FAMILY HISTORY:

A class 7 girl, staying with a brother at Tandika flats in Dar es Salaam. She had one boy friend, a secondary school boy. There was no history of tuberculosis, cardiac or hypertensive disease in the family. Nobody had suffered from diabetes mellitus in the family.

PHYSICAL EXAMINATION:

She was a healthy looking young girl with a good nutritional status. She was in pain, and could walk with difficulty. She was afebrile not pale, not jaundiced, and had no lymphadenopathy. Her blood pressure was 100/70 mmHg., and her pulse rate was 88 per minute, regular and of normal volume. The heart size and sounds were normal. The respiratory, central nervous system and the misculo-skeletal systems were normal.

ABDOMINAL EXAMINATION:

The abdomen was scaphoid without any scars or therapeutic marks. The liver, spleen and both kidneys were not palpable. The renal angles were non-tender.

VAGINAL EXAMINATION:

The left labia minora had an eliptical warm tender swelling with a shinny indurated skin covering. The opposite side was normal. Digital examination was not done because of severe tenderness.

DIAGNOSIS: Bartholin's Abscess.

The patient was therefore prepared for marsupialization in

theatre, and the following investigations done:

1. Blood - Haemoglobin - 12.3 G/dl.
   - WBC - 7,450/mm^3
   - Neutrophils - 75% Lymphocytes 20%
   - ESR was 14 mm/hour
   - VDRL was negative
2. Urine - No sugar and no protein

6th Msy, 1982: OPERATION: MARSUPIALIZATION OF BORTHOLIN'S ABSCESS.

PRE OPERATIVE PREPARATIONS:

1. The consent was signed by a brother, because the patient was below 18 years of age.
2. Premedication: (a) Injection of Atropine 0.6 mg instramuscular;
   (b) Injection of Morphia 10 mg intramuscular.

ANAESTHESIA: This was induced and maintained as described in the introduction.

PROCEDURE:

The patient was placed on lithotomy position. The vulva and perineum were cleansed with hibitane antiseptic solution, and the patient draped. A bivalve speculum was introduced into the vagina and the cervix visualized. The cervix looked healthy.
An endocervical swab was taken. Digital examination confirmed a Bartholin's abscess.

INCISION: By means of a sharp knife, a longitudinal incision 2 cm. long was made along the junction of the skin and vaginal mucosa. A purulent foul smelling discharge was drained from the abscess, and a swab was taken for culture and sensitivity tests. The cavity of the abscess was explored and was found to be smooth.

MARSUPIALIZATION.

After draining the pus, the margins of the abscess cavity were everted using chromic catgut No. 0. 6 interrupted stitches. The wound was packed with eusol for 24 hours.

POST OPERATIVE PERIOD:

1. The blood pressure, respiratory rate and pulse rate were charted 4 hourly.
2. She was to have daily savlon baths.
3. The eusol park was removed after 24 hours.
4. Pethidine injection 50 mg. intramuscularly was given 6 hourly for twelve hours.
5. She was started on Penicillin injection 1.2 m.u. intramuscularly daily for five days.

7th May, 1982: - On the first post operative day, the patient's condition was very good. She could now walk and seat without much trouble. Her pulse rate was 80/min. regular and of normal volume, her blood pressure was 100/70 mm of mercury. The cardiovascular, respiratory and the abdomen were normal. The vulval oedema had subsided, and the wound was clean. The patient was fit for discharge, but had to wait for her bacteriology results.

On 8th May, 1982: - The results of pus for culture revealed a significant growth of staphylococci aureus, sensitive to tetracycline and chloramphenical, and was resistant to penicillin and ampicillin.

She was therefore discharged on 500 mg of Tetracycline capsules to be taken three times daily for the next five days. She was seen at the gynaecology clinic one week later and she was found to have no residue abscesses or induration. And she was in normal health. She was therefore discharged from the gynaecology clinic.

COMMENT.

Bartholin's abscess occurs when there is an acute infection of the Bartholin's gland. This is a common problem at Muhimbili. It occurs in 13.6% of all infections of the pelvis; and pelvic infections contribute about 11.3% of all gynaecology admissions at Muhimbili Medical Centre.

The aetiological agent in this girl was staphylococci aureus, contrary to the previous belief that neiseria gonococci was the commonest offender. This is in agreement with the findings elsewhere. E. coli, staphylococci aureus and proteus have been commonly isolated. And, neiseria gonorrhoea has been found in only a small percentage (4% at most) of cases.

Mixed infections are also commonly encountered. Swemm et al. found mixed infections in 66% of their patients. Parker found that mixed aerobic and anaerobic infections were responsible for approximately 50% of cases. In this patient, collection of the specimen was done using a pus swab and deeping it into a Stuart Transport medium. This is not a good specimen for detection of anaerobic organisms. So this might have contributed to our failure to isolate anaerobes in this patient. Other organisms like mycobacterium, fungi, parasites and viruses have been isolated elsewhere.

The diagnosis of Bartholin's abscess in this patient posed no difficulties, because of the typical signs and symptoms. There are three major lines of treatment of a Bartholin's abscess:

1. "INCISION AND DRAINAGE" - This is not a definitive treatment because it is accompanied with frequent recurrence.

2. The "DEFINITIVE" treatment is either Excision or Marsupialization. Excision of the abscess is tidious, accompanied with haematoma formation and is not superior to marsupialization. The

patient will have to stay in hospital for a longer period after operation. But marsupialization is simple accompanied with only a short (12 - 24 hours) post operative hospital stay, and there is regeneration of some functional activity of the gland to provide lubrication to the vagina. Whereas, for instance, bilateral excision of the Bartholin's gland would leave the patient with a dry vagina. This would be a cause of frictional dyspariunea.

A CASE OF CARCINOMA OF CERVIX STAGE II A

TREATED BY RADIOTHERAPY.

Name: K.D., Age: 34 years, Tribe: Mkaguru, IP.No: 38884

Religion: Christian, Address: Kawe, Dar es Salaam

Dates: Admission: 27.9.1982

R.T. started: 29.10.1982

Finished: 8.12.1982

Discharged: 22.12.1982

SUMMARY:

Mrs. K.D. was referred from Lugalo Hospital with history of irregular vaginal bleeding and foul smelling vaginal discharge for 6 months. On examination she was found to have a small fungating mass on the lateral lip of the cervix. The upper third of the vagina was also involved. There was no parametrial involvement. The histological report of a biopsy taken from the lesion showed a moderately well differentiated squamous cell carcinoma. The patient was treated with radiotherapy. She had no major complications throughout her treatment. The management of stage IIA carcinoma of cervix is discussed.

HISTORY OF PRESENT ILLNESS:

The patient had been well until 6 months prior to admission when she started having irregular vaginal bleeding of moderate amount. The bleeding was provoked by coitus and douching. This was accompanied by episodes of a foul smelling blood stained vaginal discharge, which stained her under pants. She denied any history of blood stained stools or haematuria. She could open up her bowel normally, and she had no urinary symptoms. She had not experienced any abdominal pain or swelling; and she had no loin pains. Her lower limbs had not been painful or swollen. She had

experienced no cough or chest pains.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

Her menarche started at 13 years. The menses were lasting 7 days every 25 days, regular and scanty. Her menses had become very irregular for the last 6 months; otherwise she had had no dyspareunea, intermenstrual, or contact bleeding. Her last normal menstrual period had started 6 months prior to admission. She had not been on any contraceptives. She was para 5 + 1. Her last born child was in 1973. She had no problems during all these deliveries, and all children were alive. She had started sexual intercourse at the age of 13.

PAST MEDICAL HISTORY:

This was her first admission. She had not suffered from any major illness.

SOCIAL AND FAMILY HISTORY:

She was a housewife. She had had no education. She had been married 20 years back. Her husband was a labourer with a meat packing company in Dar es Salaam, and was a christian. This was her only husband. She did not smoke or drink alcohol. There was no family history of hypertension, cardiac disease or diabetes mellitus. She had not been in contact with anybody suffering from pulmonary tuberculosis.

PHYSICAL EXAMINATION:

She was a well nourished and young looking woman. She was not pale or jaundiced. She had no lymphadenopathy or oedema. She had neither thyroid enlargement nor cervical lymphadenopathy. She was not febrile. The throat, mouth and gums were normal. The Cardiovascular and Respiratory systems: The pulse rate was 78 per minute, regular and of normal volume. The heart size was

normal. The heart sounds were normal, and there were no murmurs. The lung fields were clear.

ABDOMINAL EXAMINATION:

The abdomen was scaphoid. The liver, spleen and both kidneys were not palpable. Both renal angles were non-tender. There was no fluid in the abdomen.

VAGINAL EXAMINATION:

The vulva and vagina were normal. There was a small fungating mass over the right lateral lip of the cervix. The mass bled easily to touch. The parametrium, the pelvic wall, and the lower part of the vagina were not involved. The adnexae were not palpable. The uterus was of normal size, consistency and mobility. The fornices were free. The glove was blood stained.

DIAGNOSIS: Carcinoma of the Cervix stage IIA.

THE PLAN OF MANAGEMENT:

INVESTIGATIONS:

Blood: - Haemoglobin 12.4 G/dl.

- White blood cell count normal.

- Blood urea 15 mg% creatinine 0.8 mg%.

Urine: - There was no albumin or sugar.

- Culture and sensitivity was sterile.

Radiology - Xrays chest and pelvic - were normal.

- I.V.P. showed normal functioning kidneys.

The patient was prepared for examination under anaesthesia, biopsy and proper stagging which was done on 30th September 1982.

PRE OPERATIVE PREPARATION:

The patient was told about her disease and the stages in the management. A consent was obtained. The perineum was shaved and the patient starved the night before operation.

30th September, 1982: EXAMINATION UNDER ANAESTHESIA.

PRE MEDICATION: Atropine 0.6 mg intravenously. Pethidine 100 mg was given as intramuscular injection.

ANAESTHESIA: This was induced and maintained as described in the introduction.

PROCEDURE:

After being given general anaesthesia, the patient was placed in lithotomy position. The perineum was cleaned with hibitane solution and draped. The bladder was then catheterized, 250 mls. of clear urine were obtained.

On bimanual examination, there was a palpable fungating mass on the left lateral lip of the cervix with fixation of the upper part, of the vagina. There was no parametrial, pelvic, rectal or bladder involvement. The uterus and adnexa were normal. The vagina had enough room to allow a bivalve speculum which was introduced and the cervix clearly visualized. A fungating was easily bleeding growth on the lateral lip of the cervix was seen. Using a sharp scapel on a handle, a biopsy of the mass was taken and sent for histology. The patients blood pressure, pulse, and any vaginal bleeding were closely observed after the biopsy.

HISTOLOGY RESULTS:

HP 5327/82 - the cervix showed a moderately well differentiated squamous cell carcinoma. Stagging under anaesthesia - CARCINOMA OF CERVIX STAGE IIA.

In view of these findings the patient was scheduled for radiotherapy. The patient was treated with Cobalt 60 external irradiation combined with intracavitary Cobalt 60.

She was given 200 rads tumour dose per session. The total dose was 4000 rads of external irradiation. This was given at four sessions (or 800 rads) per week for five weeks.

The intracavitary Cobalt 60 was given using a remote after loader, a method pioneered by Professor Henschke. She received four intracavitary applications at weekly intervals. 1000 rads were given to point A at each application. The patient finished both the external and internal irradiation within five weeks, without any major complications. During treatment, she had a weekly check up of haemoglobin, and white cell counts. These remained normal.

EVALUATION OF THERAPY:

The initial evaluation was done two weeks after completion of therapy. The patient looked healthy and she was not pale. Her haemoglobin was 10.4 gms per dl, the white cell count was 4.700 per cc. She had neither urinary, nor gestrointestinal symptoms.

VAGINAL EXAMINATION:

The vulva and vagina were normal. The cervix was firm but healthy looking. There was no growth. The uterus was of normal mobility size and consistency. There was no vaginal bleeding. The parametrium and pelvic tissues were normal. The rectal mucosa was also normal. The patient had clinically responded well to radiotherapy. She was therefore discharged and given an appointment for follow up after 6 months.

COMMENT:

The uterine cervix is the commonest site of female genital cancers.

The incidence of carcinoma of the cervix was quoted in the literature is 2 in 10,000 females, and accounts for about 6% of deaths from cancers in females. The figure for Tanzania (Anderson 1976) is 13.4%. And in 1978 carcinoma of the cervix accounted

for 85% of all malignancies in Muhimbili Gynaecology section. The aetiology is not clearly known, but associated conditions include high age (45 - 55 years), early marriage and coitus, uncircumcised husbands and low social economic status. The occurance of carcinoma of cervix in this patient who was aged 34 years was unusual. Being a married woman, she was 2 - 4 times more likely to develope cancer of cervix than a single one. She was also a multiparous, woman. This again reflects the relationship of carcinoma of cervix with coitus rather than childbearing. This woman was also of poor social economic status, which theoretically further predisposed her to developing carcinoma of cervix. The typical history and physical examination posed no difficulty in the diagnosis of carcinoma of cervix, which was confirmed histologically.

Due to lack of cytological screening programmes for this cancer, early detection has not been possible. As a result when first seen and diagnosed our cancers are far too advanced and need extensive treatment.

Before the discovery of radiotherapy early this centuary, surgical excision was the only method of treatment of cancer of the cervix. The limitations of this treatment are obvious. The alternative methods now include radiotherapy or a combination depending on the stage of the disease.

Radiotherapy continues to be the usual method of treatment in many places for advanced disease, and poses no controversy. But in early cancers the proper treatment is still controversial. Paul Heller and co-workers (1979) in their study found that the combination of Radical hysterectomy and pelvic lymphadenectomy was the treatment of choice for stages Ib and IIa, cervical cancer.

But there was another study which was done by Tavares and co-workers (1979). Out of the two series of patients with stage Ib and IIa, one group was treated with radiotherapy alone, and another group with radical hysterectomy and pelvic lymphadenectomy after a previous intracavitary radium. They found no significant difference in the five year survival or recurrence rate of both groups.

Furthermore, the number of severe injuries were higher in patients who were treated surgically. These findings were also reported by other workers including Perez, C.A. and Breux E. (1979), Carlos A. Perez and Marvin Camel (1980).

Therefore radiotherapy remains the treatment of choice for stages Ib and IIa carcinoma of cervix. The most commonly employed routes of radiotherapy, are either intracavitary or external irradiation. It is however been observed that the delivery of full tumour dose to the pelvis by external irradiation alone may lead to serious complications. On the other hand with intracavitary irradiation alone, the tumour extending to the parametrium, lymphnodes and pelvic walls may not receive enough irradiation dose. Thus the well established value of caesium, radium or Cobalt combined with external irradiation.

A CASE OF HAEMATOCOLPOS DUE TO IMPERFORATE HYMEN:

INCISION OF THE HYMEN DONE:

Name: Miss M.J. Age: 16 years old; Tribe: Mpogoro

Religion: Muslim, Address: Temeke, Dar es Salaam

I.P. No: 279799

Admission: 16.8.1982

Operation: 18.8.1982

Discharge: 25.8.1982

SUMMARY:

Miss M.J. was a 16 year old secondary school girl who had primary amenorrhoea. She was admitted through the casualty due to failure to pass urine, and severe abdominal pain. She was found to have a suprapubic mass, and an imperforate hymen. Incision of the hymen was done. The pathophysiology and management of haematocolpos in this patient are discussed.

HISTORY OF PRESENT ILLNESS:

The patient was referred from Temeke dispensary because of failure to pass urine and lower abdominal pain, for one day. She had experienced monthly attacks of severe lower abdominal pain for the past 8 months. The pain was suprapubic, localised and subsided sponteneously after 4 - 5 days. During this period, she also experienced general body weakness.

She had experienced frequency and hesitancy in initiating micturation for the past one week. Then 12 hours before admission, she completely failed to void urine, and the suprapubic pain became more intense. She had also noticed a progressive, suprapubic swelling, which was non-tender, in the course of last four months. But on the day of admission, the swelling had suddenly increased

in size, and had become more painful. She had neither constipation nor vomiting, and there was no rectal pain. The patient had no chronic cough or night sweats.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

She had never menstruated or had coitus before, and she was nulliparous.

PAST MEDICAL HISTORY: She had never had any perineal operation before, nor had she suffered from any major illness.

SOCIAL AND FAMILY HISTORY:

The patient was a secondary school girl in her second form at Jangwani Girls' Secondary School, in Dar es Salaam. She stayed with her parents at Temeke. Nobody in the family had suffered from pulmonary tuberculosis, diabetes mellitus or cardiac disease.

PHYSICAL EXAMINATION:

The patient was a well nourished girl, in severe pain. She was not pale and she was afebrile. She was not jaundiced, and she had no oedema or lymphadenopathy.

The breasts, nipples, and axillary hair were well developed, and she had no breast lumps. She looked feminine.

Cardiovascular and Respiratory systems: She had a pulse rate of 88 per minute, regular and of normal volume. The blood pressure was 100/80 mm of mercury. The heart sounds and size were normal. The lung fields were clear.

ABDOMINAL EXAMINATION:

There was a globular suprapubic mass. The liver, spleen and both kidneys were not palpable. Both renal angles were non-tender. There was a firm tender freely mobile suprapubic mass equivalent to 14 weeks of gestation. The mass which was dull on percusion was arising from the pelvis.

VAGINAL EXAMINATION:

The pubic hair was normal. The vulva looked normal. There was a semi-transparent membrane bulging at the introitus overlying a bluish coloured fluid.

RECTAL EXAMINATION:

This was done after aseptically catheterizing about 800 mls of clear urine. The abdominal swelling, though decreased in size after catheterization, still persisted.

On digital examination, the rectal mucosa was normal. There were two palpable lower abdominal masses - a lower cystic and an upper firm mass.

DIAGNOSIS: Haematocolpos due to Imperforate hymen.

In view of the above findings, the patient was prepared for incision of the hymen in theatre.

INVESTIGATIONS:

Blood - Haemoglobin 11.5 G/dl.

Urine - No sugar or protein

- Culture - yielded no pathogens.

PRE OPERATIVE PREPARATIONS:

The patient's consent for operation was obtained from the parents. The abdomen and perineum were prepared as described in the introduction.

PRE MEDICATION: Pethidine 100 mg and Atropine 0.6 mg were given intramuscularly.

ANAESTHESIA: This was induced and maintained as described in the introduction.

PROCEDURE:

The patient was placed in lithotomy position, the vulva and perineum were cleaned with chlorhexidine solution, then the patient was draped. An indwelling catheter was introduced.

A rectal examination was then done. The findings were virtually the same. The gloves were then changed. A cruciate incision was then made through the hymen into the vagina. The redundant hymeneal tissue was removed with a pair of scissors. 800 mls of dark brown blood were allowed to drain spotaneously. No speculum or digital examination was done, and no drain was inserted. Then a rectal examination was done. The uterus was hard mobile and only slightly enlarged. No adnexial masses were palpable.

POST OPERATIVELY:

A. General: (1) The blood pressure, pulse and respiratory rate were charted one hourly.

(2) The patient was nursed on the semi-seating position.

(3) The patient was not allowed to seat bath or douch.

(4) The vulva was covered with sterile pads.

B. Fluids: An intravenous infusion of dextrose saline was given 3 litres per 24 hours.

C. Drugs: (1) Injection of Crystalline Penicillin 2 m.u was given intravenously every 6 hours for 24 hours, then injection of Procaine Penicillin 1.2 m.u once every day was given intramuscularly for 5 days.

(2) Intramuscular injection of Chloramphenicol 500 mg was given 6 hourly followed by oral chloramphenicol capsules 500 mg three times a day for 5 days.

POST OPERATIVE PROGRESS:

The dark brown blood continued to drain till the fifth post operative day. The opening was still patent. On the seventh post operative day she was discharged. She was given an appointment to come back to the gynaecology clinic six weeks later.

FOLLOW UP:

The patient was seen at the gynaecology clinic six weeks later. She had had her menstrual period started on 9th September 1982. The menses lasted 4 days. She had a mild intramestrual pain. Her general condition was good. She was afebrile, not pale and was not jaundiced. There was no abdominal swelling The vulva and vagina were normal and there was no vaginal discharge. The uterus was of normal size, consistency, and mobility; and it was non-tender. There were no adnexial masses. The patient was therefore discharged from the clinic.

COMMENT:

Haematocolpos means blood accumulating in the vagina. This resulted from cryptomenorrhoea. Cryptomenorrhoea means hidden menstruation. In this condition menstruation is taking place, but the patient is unaware, because of the obstruction of the outflow. This obstruction may occur at the level of the cervix, vagina, or vulva. In this case the obstruction was due to imperforate hymen, a rare cause of cryptomenorrhoea in this centre.

In imperforate hymen, with each monthly discharge, the vaginal fills with blood which remains fluid. As the amount gradually increases, it distends the vagina (haematocolpos).

It is rare for a simple imperforate hymen to distend the cervix (haematocervix), uterus (haematometra) or tubes (haematosalpinx). As it can be seen in this patient, the uterus, cervix and tubes felt normal. The vagina can accommodate a large amount of blood and as it distends it forms a tumour which fills the pelvis and extends into the lower abdomen. This tumour however, causes urinary retention by interfering with opening of the internal urethral sphincter, not by elongation and attenuation of the urethra as formely thought.

Primary amenorrhoea is the commonest presenting symptom in these patients, usually with cyclic periods of abdominal pain, and menstrual molimina. Sometimes, as in this case, the acute retension of urine prompts the patient to hospital.
The differential diagnosis of cryptomenorrhoea include pregnancy, tuberculous peritonitis, appendicitis, ovarian cyst and pelvic kidney. But in this case imperforate hymen was ruled in by the typical history and physical examination. This condition often can be confused with imperforate vagina, but the treatment is the same.

The operative procedure, though simple demands a great care over sepsis. The vagina has been closed throughout life, so it is without the protection of Doderleins bacilli. Its epithelium is poorly formed and, its reaction is alkaline or weakly acid, The generated blood and debris offer a favourable medium for bacterial growth. There is therefore little natural resistance against ascending bacterial infection - thus the need for strict asepsis. Though drainage may take several days, it need not be hurried by insertion of drains or intermittent pressure over the

lower abdomen. Such procedures encourage infection. For the same reason vaginal or speculum examinations were not done till the follow up. period (two months later). The vulva was covered with sterile gauze, and the patient was discouraged from seat baths and douching. Prophylactic antibiotics were given for the same reason. Fertility is usually retained if the collectionn is limited to the vagina. But if there is haematometra or haematosalpinx, some patients become infertile because of sealing of the fimbrial ends of the tubes.

The parents should develop a habit of checking their children, and, ask for a gynaecological examination if an imperforate hymen is suspected.

A CASE OF REPORTED SEXUAL ASSAULT.

Name: Miss M.S. Age: 14 years old Tribe: Mbondei

Religion: Muslim Address: Mikocheni, Dar es Salaam

IP. No: 205163

Date of admission: 9.4.1981

Date of discharge: 9.4.1981

SUMMARY:

Miss M.S. was a 14 year old class seven school girl who was brought to Muhimbili hospital due to sexual assault. Examination revealed a vaginal tear with contusions at the back. She was discharged the same day after investigations were taken. The management of a rape victim is discussed.

HISTORY OF PRESENT ILLNESS:

The patient was brought to hospital by her parents accompanied with a Police Officer. She had a history of vaginal bleeding following rape, three hours prior. The victim was walking back home when a neighbour offered her a lift in his car. She was driven to an isolated house, where she was threatened and forced to have intercourse against her will. She tried to shout but her mouth was gagged immediately. The assailant who was single handed did not show any weapon. She felt a very severe pain during the forced coitus. She denied any foreign body being inserted into her vagina or rectum.

She had not changed her clothes or taken a bath neither had she urinated, or defaecated. At the hospital, she was complaining of a burning perineal pain and vaginal bleeding. The girl had had consentual sexual intercourse 6 months earlier.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

She had her menarche at 13 years. Her menses were regular and lasted 3 days every 26 - 27 days. The flow had been normal. Her last normal menstrual period was 9th March, 1981. She was a nulliparous girl, and she had not used any contraceptives. She had not suffered from any vulval ulcers.

PAST MEDICAL HISTORY:

She had not suffered from any major illness.

FAMILY AND SOCIAL HISTORY:

She was a class seven school girl, staying with her parents at Mikocheni. There was no family history of diabetes mellitus, heart disease or pulmonary tuberculosis. She had not been in contact with any patient suffering from pulmonary tuberculosis.

PHYSICAL EXAMINATION:

The patient wore a blood stained; torn cloth. Her under pants were also torn. She looked mentally normal and intelligent. She looked depressed, but was neither confused, nor hysterical. She was sobber. The scalp was normal. She had a bruize over the lower back, right thigh, and a few scratch marks over the neck region. There were grip marks over the medial aspect of her thighs. Two of her left finger nails were broken, but there was no skin or clothing underneath. The breasts and nipples were well developed but non-secretory. There were no breast lumps.

Cardiovascular and respiratory system: The pulse rate was 100 per minute, regular and of normal volume. The blood pressure was 100/70 mm of mercury. The heart size and sounds were normal. The lung fields were clear.

ABDOMINAL EXAMINATION:

The liver, spleen and both kidneys were not palpable. Both

renal angles were non-tender. There were no abdominal masses or tenderness.

PERINEAL AND VAGINAL EXAMINATION:

There were grip marks over the inner aspect of her thighs, but there was no semen. The monspubis was slightly tender, but no external injuries were seen. There were multiple bruizes on the fourchette of the vagina, which were oozing slight blood. The labia were normal. The perihymeneal area was normal. The remnants of the hymen were seen, and did not show any signs of recent trauma.

Vaginal examination - was done after asking the patient to empty her bladder. On speculum examination, no lubricant was used. The speculum was only moisteined with water.

There were only small echymoses over the posterior vaginal mucosa. The posterior fornix contained a pooled whitish material. A specimen was obtained by scrapping the material with a wooden spatulla, into the lower spoon of the speculum as a reservoir. The collection was then transferred into an empty sterile bottle. The cervix looked healthy and was not bleeding. An endocervical swab was taken for culture and sensitivity.

On bimanual examination the uterus was normal sized, non-tender and mobile.

DIAGNOSIS: Perineal tear due to sexual assault.

INVESTIGATIONS:

1. The posterior fornix aspirate - showed motile and dead sperms.
2. Endocervical swab - yielded no neisseria gonococci.
3. Blood - VDRL was negative.

TREATMENT:

A. General: (a) Antiseptic douch with shower

(b) Observation at home

B. Drugs: (a) Aspirin tablets were given, two tablets three times a day to be taken orally for three days

(b) An intramuscular injection of penicillin G 4.8 m.u was given

(c) Tablets of Diethyl stil-boestrol 25 mg twice daily were given to be taken orally for 5 days.

(d) Intramuscular injection 25 mg of Phenergan was given once daily for 5 days.

There was no need for psychological management because the patient was not mentally disturbed. She was allowed to go home.

COMMENT:

The victims of sexual assault require specialized evaluation for their well being and for assistance in preparation of possible prosecution. A thorough evaluation and treatment must therefore be made.

Rape is carnal knowledge of a female, not the wife of the assailant, without her consent. This includes those victims who are incapable of giving consent due to mental illness or underage.

Many authorities agree that only 10 - 20% of sexual assault victims report the crime, many choosing not to report to the Police. The reasons for not reporting to the Police being, threats with great bodily harm or death, fear of withstanding the stress of prosecution and encountering disbelief. Jerome T.Y. Shan reports that 60% of rape victims were due to force, or threats of bodily harm. The rest were either lured by gifts, or money, or were due to loyalty and affection to the offender. As in this case; 75% of

the offenders are known to the victim and family. The intruder who is a stranger is an exceptional rather than a rule.

The peak incidence occurs between 15 and 24 years though no age is immune. The young, single girls are frequently more victimized because they are more menageable and more easily immobilized by fears and threats. They are also more accessible. The victim in question fits very well in this description. The injuries, as they were found in this case, are rarely associated with significant bleeding, and mostly involve the external genitalia. The six Oc'lock position is the commonest site. It was important to know the last normal menstrual period in this case because, concurrent pregnancy would obviate the need for protection against pregnancy. A bimanual examination was done to assess the intactness of the uterus and presence of pregnancy. Before this procedure, the bladder was emptied, because a full bladder would be mistaken for an intraabdominal traumatic injury.

Breast development must be accurately examined and documented because young girls who are assaulted may mature into adult appearing females during the interim between assault and trial. Signs of violence must be looked for. Bite marks may be identified to a specific person. Small lacerations should carefully be examined because they may actually be deep stab wounds. In collection of specimens for investigations, anunlubricated speculum was used, because use of a lubricant would obscure the findings. Failure to detect sperms or Acid Phosphatase in the specimens, may be due to azoospermia, oligospermia, withdrawal before ejaculation or use of a condom.

Detection of Acid Phosphatase is especially important in places where vasectomy is at a high rate. These enzymes may remain stable in a dried specimen for three years. The specimens must be handled with great care. Unless they are to be examined within half an hour, they must be frozen.

The serological tests for syphilis, and the endocervical swab for neisseria gonorrhoea may prove helpful from both the forensic and treatment stand point.

A comprehensive care for a rape victim should include, attendency to physical injuries, evaluation for, and prevention of venerial disease, prevention of pregnancy, proper medical legal evaluation and documentation, and, efforts towards alleviation of psychological trauma and prevention of permanent psychological damage. Gonorrhoea occurs in 3 - 4% of rape victims, and syphilis in about 0.1%. But these may be present prior to rape. The patient should therefore be treated as if she has gonorrhoea. The benefits outway the risks, especially when false negative results for gonorrhoea culture are high, and the patient follow up is difficult. It is inadvisable to with-old therapy pending to culture results. Probenecid should be given together with a high dose of procaine penicillin.

In this patient probenecid was not given because it was not available. This regimen has the advantage of killing incubating syphilis organisms as well. Ampicillin or Tetracycline may also be used.

A high dose of oestrogen administered within 72 hours prevents implantation, by altering the endometrial lining. Before administration of oestrogens the following should be done:

(a) Obtain a consent before medication;

(b) Observe the usual contraindications to oestrogen therapy;

(c) The patient should be warned against the possible withdraw symptoms, the hazards of oestrogen therapy, and that, an abortion may be necessary.

The patient was given an appointment six weeks later to check the VDRL, mental status, and if any pregnancy had occured.

A CASE OF UNDETECTED UTERINE PERFORATION

FOLLOWING AN EVACUATION FOR INCOMPLETE ABORTION:

Name: Mrs. Z.M.; Age: 25 years old. I.P.No: 256068

Religion: Muslim, Tribe: Mngindo;

Address: Tandika, Dar es Salaam; Occupation: Housewife

Date of admission: 5.7.1981

Date of discharge: 5.8.1981

SUMMARY:

The patient was referred from Temeke dispensary where she had had an evacuation done following a five months incomplete abortion. The abortion had occured two weeks prior to evacuation. One week later the patient developed progressive lower abdominal pain and distension, generalized body weakness and low grade fever. She was then referred to Muhimbili hospital, where she was found to have uterine perforation and generalized peritonitis. A laparatomy was done, the pus and blood drained. The perforation was repaired. The patient did well, and was discharged in good condition.

HISTORY OF PRESENT ILLNESS:

The patient had an amenorrhoea of 5 months, which was associated with nausea, tiredness frequency of micturation, breast fullness, and discomfort. The nipples were issuing watery discharge. Three weeks prior to admission, she started having progressive vaginal bleeding and suprapubic pain. The pain was labour like, and was followed by expulsion of a normal male foetus. The incident was not preceeded by drainage of liquor or fever. She had been well after this abortion until two weeks later when she was admitted at Temeke dispensary on account of

vaginal bleeding and lower abdominal pain. A diagnosis of incomplete abortion was made and an evacuation of the products of conception done. After this the symptoms abated.

One week after the evacuation the patient was admitted in this hospital because of:

(a) Progressive generalized body weakness without fainting attacks or diziness. This was followed by:

(b) Persistant low grade fever without chills.

She neither had a cough nor breathlessness. She had no frequency or dysuria. She also denied having seen blood in her urine.

All these symptoms were followed by an insidious onset of lower abdominal pain and distension. This pain had been there five days prior to admission. The pain was pricking in nature, radiating to the right shoulder. It was aggrevated by cough and body movements. There were no releaving factors, and no periodicity.

The abdominal distension was generalized and progressive.

Three days before admission, she had had three episodes of vomiting. The vomitus contained recently taken food and was non projectile. She had neither passed stool, nor flatus for four days prior to admission.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

She had her menarche at 15 years of age. The cycles were 30 days, with periods lasting four days. She neither had dysmenorrhoea, nor dyspareunia. She had not suffered from any vulval ulcers. Her last normal menstrual period started late February, 1981. She had never used any contraceptives. This was her third pregnancy. She had not had any abortions prior to this one. She had two living children. All her past pregnancies and labour

were normal.

FAMILY AND SOCIAL HISTORY:

There was no family history of tuberculosis, hypertension, cardiac disease or diabetes mellitus. She got married five years back, and this was her first marriage. She was a housewife, and had not attended any formal school.

PAST MEDICAL HISTORY:

This was her third admission. The first one was in 1980, at Muhimbili Medical Centre, when she had a laparatomy. She did not know why she had this operation. The second one was 1981 at Temeke hospital when she had an evacuation for incomplete abortion.

PHYSICAL EXAMINATION:

The patient looked very ill and was in severe pain. She was moderately dehydrated and pale. There was neither ankle pitting oedema, nor jaundice. She was febrile with a temperature of 38.5°C. The lips were dry. The teeth and gums were normal. The thyroid gland was not enlarged and there was no lymphadeno-pathy.

Breasts: The breasts were well developed, slightly congested and non tender. There was areola hyperpigmentation. The nipples looked normal, and were discharging a clear fluid.

Cardiovascular system: The pulse rate was 96 per minute, regular and slightly feeble. The blood pressure was 110/70 mm of mercury. The first and second heart sounds were audible and normal. There were no murmurs. The heart size was normal.

Respiratory system: The respiratory rate was 30 per minute and regular. She was not dyspnoiec. The chest cage and movements were symetrical. The lung fields were clear and there was good air entry.

ABDOMINAL EXAMINATION:

The abdomen was uniformly enlarged. Abdominal movements with respiration were limited. There were stria gravidarum. A midline subumbilical scar was also noted. The lower abdomen was oedematous. There was no fluid thrill. But shifting dullness was demonstrable. The liver, spleen and both kidneys were not palpable. The renal angles were non-tender. There was guarding, direct and rebound tenderness over the suprapubic area and both iliac regions. The upper part of the abdomen was soft and non tender. The bowel sounds were slightly increased.

VAGINAL EXAMINATION:

The vulva and vagina were normal looking. On speculum examination, there was blood stained offensive discharge issuing from the cervical os. The cervix, fornices and vaginal walls were normal. All the fornices were free but tender. Bimanual examination did not reveal much in view of the severe lower abdominal tenderness and guarding. The glove was stained with dark blood stained pus.

DIAGNOSIS: Pelvic Peritonitis due to: Perforated Uterus
Septic abortion.

DIFFERENTIALS: Intestinal obstruction.

INVESTIGATIONS:

1. Blood - Haemoglobin - 7.6 Gm/dl.
   - Blood group B Rh (D) positive
   - Blood slide for malaria parasites - no parasites were seen
   - Serum electrolytes - Na^+ - 142 mmol/dl
     - K^+ - 4.5 mmol/dl
     - Cl - 108 mmol/dl
   - Two units of blood were transfused.

2. Urine: There was no sugar and no albumin.
There were no pus cells and no casts
Pregnancy test was negative

3. Plain Abdominal X-rays - Both erect and supine showed bowel distension, but neither multiple fluid levels, nor air under the diaphragm was seen.

She was started on:

1. Intravenous drip of Dextrose saline 4 litres per 24 hours till blood was available.
2. Intravenous crystalline penicillin 4 meg-units 6 hourly for 24 hours
3. Intravenous chloramphenicol, 500 mg 6 hourly
4. Nasal gastric tube suction
5. An indwelling Forley's catheter
6. Blood transfusion - one litre was given
7. Blood pressure, pulse were charted one hourly
8. The intake and output chart was recorded 4 hourly
9. The temperature was recorded 4 hourly.

6th July, 1981: Second hospitalization day: The patient was reviewed. She had the same complaints. She was very ill, pale, and in pain. The fever persisted at 38.6°C. Abdominal examination revealed minimal abdominal movements with respiration. The abdominal distension was increasing. There was shifting dullness but no fluid thrill. The guarding and tenderness were becoming more generalized. The bowel sounds were diminished.
The pulse rate was 100 per minute, regular of normal volume. The blood pressure remained at 110/70 mm of mercury. The output was 700 mls of urine per 24 hours. The patient continued with

treatment for twenty four more hours.

7th July, 1981: The third hospitalization day: The condition was the same. In view of her condition the patient was prepared for examination under anaesthesia, and laparatomy, depending on the findings. A further two units of blood were secured. A written consent was obtained, the abdomen and perineum prepared as described in the introduction.

7th July, 1981 - at 11.45 a.m. EXAMINATION UNDER ANAESTHESIA was done.

PRE-MEDICATION - was done as described in the introduction

ANAESTHESIA: General anaesthesia was used. She was given Thiopentone sodium 250 mg intravenously and scoline 100 mg. The patient was intubated and maintained on ether and oxygen.

PROCEDURE:

The patient was placed in lithotomy position. The vulva, vagina and cervix were cleaned with hibitane solution (an antiseptic solution). After draping the patient, 300 millilitres of urine were removed using a catheter. Bimanual examination was then done. The uterus was found to be enlarged, equivalent to 18 weeks of pregnancy, and boggy. The adnexae were of normal size and mobile.

In view of these findings, and the poor progress of the patient, a laparatomy was deemed necessary. So the stirrups were removed and the patients legs straightened.

LAPARATOMY:

The abdomen was cleansed with hibitane and flavin in spirit, then draped and towel clips were applied. The subumbilical midline scar was removed by grasping it with a tissue forceps and cutting its base with a knife. The abdominal cavity was opened up. There was pneumoperitoneum. 600 mls of admixture of pus and

blood were evacuated from the abdominal cavity. A right sided fundal uterine perforation, about 4 cm. long and 3 cm. wide was found. The whole of the uterus was coated with thick pus but was viable. There were no other perforations in the uterus. The stomach was also coated with pus. The rent on the uterus was repaired, and a patch of omentum was applied on the repaired site. After exploration of the uterine cavity through the rent, peritoneal lavage was done with normal saline. Inspection of the appendix, tubes, and ovaries revealed that they were normal, so were left intact. The gut was inspected from the duodenum to the rectum and was found to be normal. Two corrugated rubber drains were inserted through two stab wounds, separate from the incisional wound. These were anchored to the edges of the stab wounds with silk No. 20. The abdomen was closed in layers. Pus was taken for culture and sensitivity in an empty sterile bottle.

POST OPERATIVE ORDER:

A. General care:

1. Blood pressure, pulse and respiratory rates were taken ¼ hourly till patient was awake, then ½ hourly for 2 hours, then 1 hourly.
2. Body temperature was checked twice daily.
3. The input and output chart recorded every four hours.
4. Lung bases were checked daily.
5. Indwelling catheter was to continue.

B. Drugs:

1. Injection of Pethidine 100 mg intramuscularly for 48 hours.
2. Injection of Crystalline penicillin 4 m.u intravenously 6 hourly was continued for another 24 hours, then Procaine

Penicillin Fortified was given at doses of 1.2 m.u intramuscularly for another five days (daily).

3. Injection of Chloramphenicol 500 mg intravenously was given every 6 hours for another 24 hours, then 500 mg intramuscularly till patient could take oral capsules, 500 mg four times a day for a further five days.

4. All these antibiotics were changed according to results of culture and sensitivity.

C. Fluids:

The patient was transfused with 2 units of blood. She was then continued with two and half litres of Dextrose saline every twenty four hours.

8th July, 1981: First post operative day: The patient was reviewed. She was in good general condition. The temperature was 36.2°C. She was moderately pale.

Cardiovascular system: Blood pressure was 110/70 mm of mercury. Pulse was 80 per minute of normal volume and regular. The heart sounds were audible and normal. Heart size was normal.

Respiratory system: Respiratory rate was 26 per minute, regular and the chest was symetrical. She had no dyspnoea. The lung bases were clear.

ABDOMINAL EXAMINATION:

The abdomen was still distended and tender. There was minimal movement with respiration. Both drains were functioning well. Bowel sounds were abscent. Urinary output was 700 mls per twenty four hours. The patient continued with treatment.

9th July, 1981: Second post operative day: She had a good general condition. Temperature was normal with mild palor and was not dehydrated. She still had abdominal distension, and the drains were working well.

INVESTIGATIONS:

1. Blood - Haemoglobin was 9.2 gm per decilitre.

Dressing was changed on the wound and the drains were shortened.

10th July, 1981: Third post operative day: The patient was reviewed. Her general condition was very good. The temperature was 36.7°C. She was not pale.

Cardiovascular system: The blood pressure was 120/80 mm of mercury. The pulse rate was 96 per minute, regular, normal volume.

Respiratory system: She was not dyspnoiec. The respiratory rate was 24 per minute and regular. The lung bases were clear.

Abdomen: The abdomen was only slightly distended, non-tender soft and moving with respiration. Drains were working. Bowel sounds were present.

PLAN: 1. Both drains were shortened

2. She was started on oral feeds. - weak tea three mugs (200 mls) per day

3. Chloramphenicol was taken orally as capsules 500 mg four times per day.

11th July, 1981: Fourth post operative day: Her condition was very good. No abnormal developments were noted.

Laboratory results: Pus for culture and sensitivity yielded a heavy growth of Pseudomonas aerogenosa which was sensitive to Gentamycin and Carbencillin.

The plan was to:

1. Remove all drains
2. Start patient on high protein diet
3. Injection of Gentamycin 80 mg intramuscularly, twice a day for seven days.

4. Penicillin and Chloramphenicol were stopped.

5. Allow patient to walk.

14th July, 1981: The patient had done very well. All the stitches were removed, and she was on full diet.

There was a small septic focus on the incision wound. The wound was dressed with Eusol for a further two weeks.

3rd August, 1981: The patient's condition was very good. The wound had healed well. She was in her menses. She complained of a colicky lower abdominal pain (dysmenorrhoea). She was therefore given antispasmodics avafortan two tablets per day. She recovered after three days.

5th August, 1981: The patient had completely recovered. She was discharged and given an appointment to the gynaecology clinic after six weeks later. Meanwhile she was put on Ferrous sulphate 400 mg daily and Folic acid 5 mg daily.

12th August, 1981: She was seen at the gynaecology clinic. Six weeks later, she was in a very good condition. She was not pale, her haemoglobin was 10.7 G per decilitre.

COMMENT:

This was a young woman who developed signs and symptoms of sepsis within seven days after evacuation. The physical examination showed evidence of intraperitoneal fluid, anaemia and fever. The fluid was blood resulting from uterine perforation.

Uterine perforation may be confirmed by: an erect abdominal X-ray, which may show air under the diaphragm, uterine sounding, where the sound may be seen to go beyond a previously measured sounding, and the patient complains of severe midline pain, which

subsides immediately on withdrawing the sound. But in lateral perforation sounding may be arrested by the leaves of the broad ligament; in which case the most important sign will be appearance of sudden severe lateral pain. An X-ray done in this patient, also ruled out the possibility of intestinal obstruction. The other investigations in this patient were unnecessary, because the patient showed evidence of intraperitoneal fluid and was not improving on the treatment given in the ward. The pulse rate was also going up. The management of uterine perforation is "conservative" unless:

a) The abdominal contents prolapse through the hole, which may later on cause intestinal obstruction, or there is evidence that, an injury that has occured to the vessels bowel uterus may need repair.

b) The uterus still contains products of conception.

c) There is intraperitoneal fluid or pyometra.

d) In abscence of all the above, where the patient fails to respond or worsens on conservative management.

No evacuation of the uterus was done in this case, because on exploration of the uterine cavity through the rent, it was found to be empty.

At laparatomy, inspection of the fallopian tubes, ovaries, appendix and gut from the duodenum to the rectum was a very important because of their common involvement in uterine injuries and infection.

Hysterectomy or tubal ligation were not done because the perforation was small enough to allow easy repair, the patient was young and of low parity, and the condition of the tubes was good.

The drains were rightly inserted through separate stab wounds, because, insertion through the actual incision leaves a weaker abdominal wound, increases the risk of infection, and adds to the pain and discomfort of the post operative period.
Post operatively, the patient's condition, among other things, was monitored using the blood pressure, pulse and output charts. Over trnasfusion was assessed by ausculatation of the lung bases. The best way to monitor this patient was a central venous pressure. This was not done due to lack of facilities.

The quick recovery of the patient was due to multiple factors. She was a young woman, the focus of infection had been eliminated by evacuation of pus, the treatment was instituted promptly and she was closely observed. When she becomes pregnant, she should be managed as a patient with a poorly healed uterine scar.

A CASE OF POST ABORTAL PELVIC ABSCESS

POSTERIOR COLPOTOMY DONE TO DRAIN THE PUS:

Name: Mrs. A.S. Age: 26 year old, Arab, Religion: Muslim,

I.P. No: 290355

Address: Mchikichi Street No. 10, Kariakoo, Dar es Salaam

Admission date: 10.5.1982

Discharge date: 27.5.1982

SUMMARY:

The patient was admitted through the casualty to the gynaecology ward due to post abortal pelvic infection. She was found to have a pelvic abscess, which was drained through a posterior colpotomy.

HISTORY OF PRESENT ILLNESS:

The patient had an amenorrhoea of two months. This was associated with nausea, tiredness, breast fullness and discomfort. She had no vomiting or abdominal distension.

The patient had attempted an instrumental criminal abortion in town. This had happened two weeks prior to admission. This was followed by irregular vaginal bleeding, severe lower abdominal pain and fever. The blood was dark brown in colour and of small amount. The abdominal pain was of an insidious onset, burning in character and non radiating. These was no periodicity. There were no exacerbating or relieving factors. The pain was localized in the suprapubic region. There was no paraumbilical pain. She opened up her bowel normally. She denied any history of loin pains frequency, dysuria, urgency and haematuria. The fever was of sudden onset, and not accompanied with rigours. She experienced headaches and joint pains. She had no shoulder tip pains. She

had been on several antibiotics prior to admission - tetracycline, penicillin, streptomycin and ampicillin. She had used all these drugs within two weeks.

OBSTETRIC AND GYNAECOLOGICAL HISTORY.

She had her menarche at 14 years. The menses lasted for 5 days every 20 days. The menses were regular and of normal flow. She had no dysmenorrhoea or dyspariunea. She had never used any contraceptives, and she had never suffered from any vulval ulcers. Her last normal menstrual period had started on 8th February, 1982. This was her third pregnancy. She had two living children.

FAMILY AND SOCIAL HISTORY:

She was staying, with her parents in Kariakoo, Dar es Salaam. Nobody in the family had suffered from pulmonary tuberculosis, cardiac disease or diabetes mellitus.

She was single, having been divorced three years back. She was not employed. She did not smoke or take alcohol.

PAST MEDICAL HISTORY:

This was her first admission. She had never had any major illness.

PHYSICAL EXAMINATION:

She was a well nourished young lady, febrile T.= 38.5°C. She looked ill and pale. She was moderately dehydrated with dry lips and tongue. The breasts were normal.

Cardiovascular system: The blood pressure was 100/60 mm of mercury, the pulse rate was 112 per minute, regular with a normal volume. The jugular venous pressure was normal. The heart sounds and size were normal. There were no murmurs.

Respiratory system: The chest was symetrical. The lung fields were clear.

ABDOMINAL EXAMINATION:

There was slight abdominal distension but the flanks were not full. The abdomen was moving with respiration. There were stria gravidarum on the abdominal skin. The liver, spleen and both kidneys were not palpable. Both renal angles were non tender. There was neither fluid thrill nor shifting dullness in the abdomen. The suprapubic area was very tender. There was also guarding and rebound tenderness. The bowel sounds were present.

VAGINAL EXAMINATION:

The vulva and vagina were normal. On speculum examination, there was a blood stained foul smelling discharge issuing from the cervical os. The cervix looked healthy. The pouch of Douglas was full and soft. An area of induration was also visible on the cystic mass in the posterior fornix. Bimanual examination revealed a bulky, mobile, tender uterus equivalent to 8 weeks of gestation. The gloved fingers were stained with an admixture of blood and pus.

RECTAL EXAMINATION: The pouch of Douglas was full and there was no pus from the rectum.

DIAGNOSIS: Post abortal pelvic abscess.

DIFFERENTIAL: Pelvic haematocoele.

INVESTIGATIONS:

1. Blood - Haemoglobin - 9.8 G per dl.
   - Blood group O Rh (D) positive
   - Blod slide - no malaria parasites

- Total white cell count - 14,000/dl.
- ESR - 50 mm/hr

Serum electrolytes - Na^+ - 143 m.equiv. K^+ = 4.5 m.equiv/dl. and Cl = 101 m.eq/dl.

2. Urine: - No sugar and no protein
- No casts or pus cells in the urine sedment
- Pregnancy test was negative
- Culture was negative

3. X-ray - Erect abdominal X-ray - showed no gas under the diaphragm.

In view of the above findings, the patient was planned for:

a) Examination under anaesthesia

b) Evacuation of any products of conception

c) Culdocenteces

d) Surgical management depending on the findings in (a), (b) and (c).

So the patient was started on the following therapy:

1. Blood transfusion - two units were given.

10th May, 1982: EXAMINATION UNDER ANAESTHESIA

PRE MEDICATION:

1. Injection Atropine 0.6 mg intramuscularly
2. Injection Pethidine 100 mg intramascularly

ANAESTHESIA: General anaesthesia was used. The patient was anaesthetized with Thiopentone sodium 200 mg intravenously. 10 mg of diazepam was also given intravenously. No intubation was done. The patient was maintained on a mask of Nitrous oxide and oxygen.

PROCEDURE:

The patient was placed in lithotomy position. The vulva, perineum and vagina were cleaned with hibitane solution. The

patient was draped. The bladder was catheterized 250 mls of urine were removed.

Bimanual examination was done. Then a Sims speculum was introduced and the cervix visualized. Using a Volsellum forceps the anterior lip of the cervix was grasped and the cervix drawn forward. The uterus was sounded to 3½ cm, it was anteverted anteflexed and pushed anteriorly. The cervix was dilated to Heggars dilator number 8. There was no pus from the uterine cavity. A gentle curretage recovered very scanty products of conception and there was minimal bleeding. The valsellum forceps was now used to grasp the posterior lip of cervix. The cervix was pulled through the posterior fornix into the pouch of Douglas the needle being connected to a twenty mils glass syringe. About 10 mils of frank pus were aspirated. Still maintaining the needle and syringe in position, a transverse incision was made in the posterior fornix to include the punture made by the needle. Then the needle was removed and the opening enlarged using a blunt forceps which was introduced into the incision and opened up to drain pus. About 350 mls c. of brownish pus were thus drained. The pus was smelling. A corrugated rubber drain was inserted and kept in position using plain catgut No. 2.0 by fixing it to the edges of the incision in the posterior fornix. The drain was left in position for one week. The pus was taken in an empty sterile bottle for Gram's stain, culture and sensitivity.

During the immediate postoperative period, the patient's general condition was good, the blood pressure was 100/60 mm of mercury, and the pulse rate was 90 per minute, regular and of normal volume. There was minimal blood loss. The operating time was 10 minutes.

POST OPERATIVE CARE:

A. General care: 1. The blood pressure, pulse and respiratory rate were recorded at 1 hourly intervals.

2. The body temperature was checked every 4 hours.

3. The input and output were recorded every 4 hours.

B. Drugs: 1. Chloramphenicol and Penicilline were continued at 6 hourly intervals for a further 12 hours. Then chloramphenicol was given orally 500 mg three times a day for one week, and Procaine Penicillin Fortified was given intramuscularly once every day for one week.

C. Fluids: 1. The patient continued receiving 3 litres of 5% dextrose alternating with normal saline (Litre per litre) every 24 hours.

2. A further 500 mls of blood was transfused.

Pus for Gram's stain revealed a lot of pus cells. Culture and sensitivity grew no pathogens.

POST OPERATIVE PROGRESS:

11th May, 1982: first post operative day: The patient was reviewed and found to have a good general condition, with moderate pallor. She was not dehydrated. She was still febrile with a temperature of 39°C. The jugular venous pressure was normal. The blood pressure was 110/80 mm of mercury with a pulse rate of 98 per minute, regular and of normal volume., There was no cardiomegally. The lung fields were clear.

ABDOMINAL EXAMINATION.

There was no abdominal distension or organomegally. The suprapubic region was still tender. The renal angles were non tender. The bowel sounds were present.

VAGINAL EXAMINATION:

The patient was still discharging pus through the drain in the pouch of Douglas. The observations and medication were continued.

12th May, 1982: The second post operative day: The general condition continued to be good though the temperature was still high 38°C. The blood pressure was 110/80 mmHg and the pulse rate was 96/min. regular of normal volume. The abdomen was soft. The vaginal drain was working well.

By the fifth post operative day the patient was opening bowel normally. Her general condition was good. She was afebrile. There was very little pus draining. The lower abdomen was only slightly tender.

22nd May, 1982: The patient was now complaining of having vomitted non projectile bile stained fluid. There was no abdominal distension. There was no fever or rigours. She was passing stool normally. There was no frequency, dysuria, urgency or renal angle pains.

On examination she was found to be in a good general condition, not dehydrated, not jaundiced. There was no abdominal distension or tenderness. There was no enlargement of the liver, spleen and both kidneys. Both renal angles were non-tender. There was no tenderness or masses on abdominal palpation. The bowel sounds were normal. There was no more vaginal

discharge, The vulva and vagina were normal. The wound on the posterior fornix was granulating but all fornices were free. The cervix was normal.

Bimanually, the uterus was of normal size, anterveted, anteflexed mobile and non-tender. There were no adnexal masses. The vital signs were normal.

So she was continued on observation. Phenergan 50 mg. intramuscular was given stat.

The patient continued doing well and recovered uneventfully. She was discharged on 27th May, 1982 and given an outpatient date one week later to attend gynaecology outpatient clinic.

She started using oral contraceptives immediately after discharge.

3rd June 1982: The patient was seen at the outpatient gynaecology clinic. She had no complains.

On physical examination she was in good general condition, was not anaemic, afebrile, not jaundiced and no pitting oedema.

Cardiovascular system: Blood pressure was 120/80 mm of mercury the pulse was 74/min. regular, and good volume. The heart sounds and size were normal.

Respiratory system: The lung fields were clear and air entry was good bilaterally.

Breasts: Were normal in consistence and size. They were non secreting.

ABDOMINAL EXAMINATION:

There was no abdominal distension, no organomegally and no evidence of fluid. There was no tenderness on abdominal palpation. Bowel sounds were normal.

VAGINAL EXAMINATION:

Vulva and vagina were normal. The site of drain had sealed and there was no discharge. The fornices were normal, non-tender. The uterus was normal with slightly limited morbility, and the adnexae were normal.

COMMENT:

The patient in question was a young lady, divorced and unemployed. She was therefore a candidate for unwanted pregnancy. That this condition followed a predisposition to an ascending infection by intrauterine instrumentation fits in the picture very well.

The diagnosis of pelvic abscess is not always easy. Culdoscentesis is a valuable adjuvant to determining free pus in the cul-de-sac. One has to decide whether the bulge in the pouch of Douglas is a pelvic abscess (whose treatment may only require colpotomy as in this case) or a pelvic haematocoele which should always be treated by laparatomy. It is difficult to differentiate a pelvic abscess from a pelvic haematocoele by doing a white blood cell count and ESR because these may be raised in both conditions. Use of an aspiration needle in the pouch of Douglas may differentiate the two, but this procedure bears the risk of infecting the peritoneum.

In this patient the pus taken for Gram's stain culture and sensitivity proved to be negative. This may be explained by:

a) The indiscriminate use of antibiotics as in this patient. She had used many antibiotics within a short time before she finally came to hospital.

b) The fact that anaerobes were not looked for because an air free sample was not taken.

Taking a syringe full of pus and expulsion of all free air has enables an anaerobic culture to be made.

There are two main lines of treatment. Collins believes in conservative management. But most schools of thought take the aggressive management. This may either be laparatomy or posterior colpotomy; and occasionally rectal incision. Before vaginal drainage is done the following condition must be fulfilled:

a) The infection must be strictly localized in the pelvis

b) The abscess must distend the pouch of Douglas with an induration around the area of softening.

c) There should be no doubt that the swelling in the pouch of Douglas is an abscess.

d) A rectal examination must be done as most abscesses if left untreated discharge through the rectum in which case there would be no point in performing the operation.

Because of the above, the decision for this form of management was made in this case. Vaginal drainage of pus is advantageous it is a less traumatic operation, the operating time is short; usually no patient will require blood due to loss at time of operation and the patients have a short hospital stay. But sometimes the patient may require laparatomy for persistant pelvic pain; pelvic mass, menorrhaghia or ectopic gestation and infertility.

It is on Tellindes opinion that posterior colpotomy should be an indication for subsequent hysterectomy and salpingoophorectomy. He recommends that surgical extirpation of uterus and

adnexae be carried out routinely following colpotomy since pregnancy is a rare sequalae of pelvic abscess, and the related future gynaecological problems are frequent.

But a 10% residual fertility was proved by the UCLA series of Rubenstein, Mishalle and Ledger in patients similary treated.

It is the authors recommendation that removal of pelvic viscera should strongly be considered in those patients who do not require further child birth, and fail to improve rapidly and completely following a cul-de-sac drainage. The patient's good recovery in this case is attributed to her young age and good nutritional status, early surgical intervention and close observation.

Whatever form of therapy offered the best is prevention of unwanted pregnancy by sex education in schools and liberalization of contraceptive practice.

A CASE OF UTERINE FIBROID:

TOTAL ABDOMINAL HYSTERECTOMY WAS DONE:

Name: N.M, Age: 35 years, Tribe: Mkara, Religion: Muslim

I.P. No: 289871, Address: Musoma

Dates: Admission: 23.6.1982

Operation: 25.6.1982

Discharged: 2.7.1982

SUMMARY:

Mrs. N.M. presented at Muhimbili Medical Centre with a history of heavy and prolonged menses. She also had a large supra-pubic mass for 2 years. She was para 1 and her last born child was 17 years. She was found to have multiple uterine fibroids. After a diagnostic dilatation and curettage, and a papanicolau smear, total abdominal hysterectomy was done. The post operative period was uneventful. She was discharged on 2nd July, 1982 in good health. The pathophysiology of some of the symptoms of multiple uterine fibroids, and the management are discussed.

HISTORY OF PRESENT ILLNESS:

The patient had complained of heavy and prolonged menses for the past one year. They were heaviest on the third menstrual day. She had had her menses lasting 4 days every 21 - 28 days, but for the past one year they had lasted 10 - 11 days, though regular. She had experienced no fainting attacks, palpitations or weight loss. She had also noticed a slowly growing, hard lower abdominal swelling for the same period. She had no contact bleeding. She had no fever or vomiting. Her bowel habits were normal. She had experienced slight diurnal frequency, but no dysuria or hesitancy.

OBSTETRIC AND GYNAECOLOGICAL HISTORY:

She had her menarche at 13 years. She had normal menses. She experienced no dysmenorrhoea. Her last menstrual period was 7th May, 1982. She had had no contact bleeding or dyspareunea. She had not been on any form of contraceptive.

She was para 1 and the child was 17 years old. She had had a full term normal delivery at home. She had no problems antenatally during intrapartum, and the puerperium.

PAST MEDICAL HISTORY:

She had not suffered from any major illness.

SOCIAL AND FAMILY HISTORY:

The patient was a housewife. The husband was a peasant living in one of the villages in Musoma. The husband had four children with another wife. Their last born was 2 years old. The patient had not had any formal education. She was a moderate alcohol drinker, but did not smoke. Nobody in the family had suffered from diabetes mellitus, hypertension, cardiac disease or pulmonary tuberculosis.

PHYSICAL EXAMINATION:

She was a middle aged lady who was not pale not jaundiced and was afebrile. She had no lymphadenopathy. Her thyroid gland was normal, the throat and mouth were also normal.

Cardiovascular and Respiratory systems: Her pulse rate was 80 per minute, regular and of normal volume. Her blood pressure was 120/80 mm of mercury. The heart size and sounds were normal. The lung fields were clear. The central nervous system was normal.

ABDOMINAL EXAMINATION:

This was done after the patient had passed urine. The liver, spleen and both kidneys were not palpable. Both renal angles were

non-tender. There was an irregular, multilobular, hard, non-tender, mass on the lower abdomen equivalent to 20 weeks of pregnancy. The mass had minimal mobility and was arising from the pelvis. There was no evidence of fluid in the abdominal cavity.

VAGINAL EXAMINATION:

The vulva and vagina were normal. There was neither vaginal discharge nor vaginal bleeding. The cervix looked healthy and parous. A papanicolau smear was taken from the endocervix. On Bimanual examination, the cervix was firm and closed. The fornices were free. An enlarged multilobular uterus equivalent to 20 weeks of gestation was confirmed. The adnexae were not palpable.

DIAGNOSIS: Uterine fibroids with menorrhagia.

The patient was told of her problem and the treatment. She was cautioned that after removal of her uterus she would neither conceive, nor menstruate. She was therefore worked up for the operation. After taking the investigations the patient was allowed to go home. She was admitted two weeks later.

INVESTIGATIONS:

1. Blood - Blood urea = 25 mg/dl. creatinine 0.8 mg/dl.
   - Grouping and crossmatch - B Rh (D) positive
   - Haemoglobin 11.3 G/dl.
2. Urine - Sugar and protein were negative
   - Culture yielded no growth
3. Stool: - There were no ova
4. Cervical cytology - Grade I smear
5. Endometrial tissue - Proliperative endometrium. No malignant cells were seen.
6. I.V.P. - No ureteric obstruction or displacement.

PRE OPERATIVE PREPARATIONS:

The patient was admitted on 23rd June, 1982 and operated two days later. On the day of admission she was shaved, starved and given an enema.

OPERATION: Total Abdominal Hysterectomy

PRE MEDICATION: 0.6 mg of atropine and 100 mg of pethidine were given intramuscularly.

ANAESTHESIA: Induction was done by using 250 mg of Thiopentone. She was relaxed with scoline 200 mg before intubation. She was then maintained on oxygen Nitrous Oxide and ether.

PROCEDURE: The perineum was cleaned with chlorhexidine solution. The bladder was then emptied aseptically. It yielded 150 mls of clear urine.

Abdomen: Was cleaned with chlorhexidine solution and flavin in spirit. Draping were then applied.

The abdomen was then opened up through a subumbilical incision extending from the upper boarder of the pubic symphysis to just below the umbilicus.

Multiple subserous and intramural uterine fibroids were seen. There were dense adhesions involving the appendeges, the uterus and the posterior abdominal wall. Both ovaries looked normal. Two wet abdominal packs were inserted in the abdomen. A self retaining retractor was then set in position. A myoma screw was then inserted on the fundus of the uterus, and the uterus pulled upwards out of the pelvis.

The round and ovarian ligaments were identified; doubly clamped with Kocher's forceps. They were then divided and ligated with catgut No. 2. A length of catgut was left on the distal

portions. The broad ligament was opened up by dividing the anterior leaf with a Mayo's scissors, downwards first, then downwards and medially, towards the lower segment of the uterus. The bladder together with the ureters were carefully displaced downwards; towards the cervical vaginal junction; and out of the danger zone.

The uterine vessels on the lateral border of the uterus were identified and clamped with Kocher's forceps. They were then divided between clamps. The lower stumps were then transfixed with catgut No. 2. The uterus was then pulled towards the opposite side, and the procedure repeated. The utero-sacral ligaments posterior to the uterus were identified, clamped then transfixed with chromic catgut No. 2. The peritoneum was opened up posteriorly.

The tip of the cervix was then identified by a blind palpation between the fingers placed in the pouch of Douglas and utero-vesicle space.

The vagina was opened up anteriorly by a stab incision, and the lip of the cervix held by a volsellum forceps. A gauze soaked in a solution of flavin in spirit was then introduced into the vagina, through the abominal incision, and left there to be removed at the end of the operation.

The vagina was cut around, removing the whole of the uterus and the fallopian tubes. Holding the vaginal vault with Allis forceps, the vaginal angles were carefully clamped, and the para vaginal plexus of veins ligated.

The vaginal vault was then closed with matress sutures of No. 2. chromic catgut. The operation field was then inspected, blood mopped up, and haemostasis assured. The pelvis was then reperitonized with chromic catgut No. 0.

The abdominal packs and retractors were removed, the instrument and swab counts were pronounced correct. The peritoneal cavity was inspected, mopped and the abdomen closed in layers. Silk was applied to the skin. Anaesthesia was discontinued. The blood loss was 400 mls. The immediate post operative condition was good.

MACROSCOPY: The uterus was cut open. There were submucous fibroids apart from the subserosal and intra-mural ones. The endometrium, cervix and the follopian tubes looked normal. The whole of the uterus and the fallopian tubes were sent for histology.

Histology: The uterus showed multiple fibroids. The cervix and the endometrium showed chronic inflammation. Both fallopian tubes were normal.

POST OPERATIVE ORDERS:

1. General: a) The blood pressure, pulse rate and respiratory rate were checked every 1 hour.
   b) The temperature was taken every 4 hours.
   c) An intake and output chart was started.
2. Fluids: a) 3 units of blood were transfused.
   b) 1½ litres of dextrose saline were given for the first 24 hours followed by 3 litres per 24 hours.
3. Drugs: a) Injections of Crystalline penicillin 0.5 m.u were given intravenously every 6 hours for 24 hours, followed by intramuscular injections of 1.2 m.u of Procaine Penicillin.
   b) Injection of chloramphenicol 500 mg was given 6 hourly intravenously until the patient could

take orally, when 500 mg capsules were given three times a day.

3. 100 mg of pethidine was given intramuscularly every 6 hours for 24 hours.

POST OPERATIVE PROGRESS:

On the second post operative day the patient had not passed flatus. Her temperature, blood pressure and respiratory rate remained normal. On examination she was found to have mild ileus.

By the third post operative day the patient had passed flatus and her condition was normal. Her haemoglobin was 10.2G/dl Alternate stitches were removed on the 7th day, and completed on the eighth day. The wound had healed well. There was no haematoma or abscess.

On the ninth post operative day, the general condition of the patient was good. Speculum examination revealed a well healed vaginal vault. The patient was therefore discharged on ferrous sulphate, two tablets, to be taken twice a day, for one month, and folic acid tablets which were to be taken one tablet (5 mg) once every day for the same duration. The patient was also advised not to have sexual intercourse for 3 months. She was given an appointment to the gynaecology clinic six weeks later. At follow up the patient had done well. The general condition was good. The wound was well healed. Her haemoglobin was 11.2 G per dl. She was discharged from the clinic.

COMMENT:

Uterine fibroids go by various names - myoma fibromyoma and fibroleiyomyoma.

Excluding pregnancy, this is the commonest pelvic tumour. These tumours are usually multiple, composed essentially of muscle tissue with variable amounts of fibrous and connective tissue. The growth arises from the myometrium, not from the middle layer of the blood vessels as formely thought.

These tumours are rare before 20 years of age. The symptoms usually appear at the age of 35 - 45. It is more common in nulliparous and low parity group. This patient was 35 years old, and a mother of one child born 17 years ago.

Like in this patient, the cycles are not altered, unless the tumour is large enough to disturb the blood supply to the ovary. Menorrhagia, is one of the complications of uterine fibroids, this patient had. The cause of menorrhagia in uterine fibroids are:-

a) Increased vascularity of the uterus, and increased surface of the endometrium

b) Compression of the veins by the tumour, causing dilatation and congestion of the endometrial venous plexus.

c) Associated endometrial hyperplasia and

d) Interference with myometrial contractions which are alleged to control blood flow through the uterine wall.

The swelling is usually a very slow growing one. Though this patient claimed to have noticed this swelling for only one year; the actual growth must have started along time ago.

Pain is a very rare symptom unless the tumour turns malignant.

The fact that this patient had secondary infertility demonstrates the common association between infertility and uterine fibroids. It is still questionable whether infertility is a cause or effect of uterine fibroids. The possible mechanisms of the causation of infertility by uterine fibroids are:-

a) Interference with implantation of the fertilized ovum

b) Hinderance of ascent of sperm by distorting the tube and the uterus.

c) There may be an associated disturbance of ovulation. These masses are usually hard. If cystic or soft there is likelihood of cystic degeneration.

The differential diagnosis here include:

a) Pregnancy - Amenorrhoea does not occur due to uterine fibroids, and the uterus is usually soft in pregnancy.

b) Adenomyosis - (Endometriosis) - Usually occurs in younger age group, and rarely the uterine size reaches more than 12 - 14 weeks. The uterine swelling is usually regular rather than nodular.

c) Ovarian tumour - There is usually no menstrual disturbance and on examination the swelling is usually not connected to the uterus. The consistency is commonly cystic.

Diagnostic D & C and Pap smear were done to rule out endometrial carcinoma and other malignancies which could cause abnormal bleeding. Besides; the association between uterine fibroid and endometrial carcinoma is a real one.

Surgical treatment is indicated if the uterine size is more than 10 - 12 weeks, or the uterine fibroid causes complications. Surgical therapy in this patient was indicated by the big sized uterus and menorrhagia. Other indications for surgical removal include a rapidly growing tumour, a subserous and pedunculated fibroid which is prone to torsion, or a fibroid of doubtful nature.

While doing surgery, there is a place for cophorectomy in post menopausal women. Palliation therapy may be administered if; the patient has monorrhagia and, the operation has to be postponed. As a temporary control therefore,

a) Methyl testosterone 5 mg can be given sublingually twice daily for two months. Also oestrogen and progesterone pills can be given in large doses pending to surgery.

b) External radiotherapy may be given in severe menorrhaghia where an operation cannot be done immediately. Irradiation destroys the fast growing endometrium and therefore stops the bleeding.

PARACERVICAL BLOCK ANAESTHESIA FOR EVACUATION OF INCOMPLETE ABORTION IN PATIENTS ADMITTED AT MUHIMBILI MEDICAL GYNAECOLOGY WARDS 1982:

SUMMARY:

In 1980 abortion was the commonest indications of gynaecologic admissions (57.8%) and operations (72.4%). Evacuation for incomplete abortion is normally done under sedation of valium and pethidine. Evacuation for incomplete abortion was done in 140 consecutive patients, using 1% lignocaine solution. This technique allowed successful curettage in 82.1%. The success rate increased with increasing age, parity, and cervical dilatation. 71.1% of patients could be managed as outpatient. There were no major complications. It is possible to use this technique as an outpatient procedure.

INTRODUCTION:

Abortion is the commonest condition for gynaecological admissions at Muhimbili Medical Centre. In 1980, for instance, abortion alone was responsible for more than half (57.8%) of all gynaecological admissions. Out of 8,060 admissions, 4,659 were due to abortions. During the same period, evacuation for incomplete abortion accounted for nearly three quarters (72.4%) of the gynaecological operations. This operation is done on the day of admission under intravenous pethidine 100 mg and valium 10 mg. The patients are discharged on the next day if no complications arise. This method utilizes the additive effects of a narcotic analgesic and sedative hypnotic. With these large doses, due to respiratory depression, the respiratory rate falls progressively, and finally becomes not only slow but shallow and irregular in

pattern. These patients are therefore, prone to risks similar to those of general anaesthesia. In conditions in which no reserve respiratory function exists, slight additional respiratory depression may lead to respiratory decompansation and death. The morphine derivatives (pethidine) stimulates the chemoreceptor trigger zone on the medulla. Thus, they may induce nausea and vomiting. All these, together with a patient who has eaten recently, pose a real risk of inhalation.
Pethidine may induce hypotension even in therapeutic doses, especially in a patient who is very ill and dehydrated.
Besides doing the operation, the surgeon, is responsible for administration of the drug and care of the patient intraoperatively. In places where there is shortage of personnel, the only assistant available may be a nursing assistant, who does not know how to keep the airway clear. As the risks of giving pethidine and valium, are generally, not much appreciated at Muhimbili; facilities for resuscitation are often lacking. The patients' are, for instance; not on intravenous drip. They cannot, therefore, be infused immediately in case emergency resuscitation is necessary. The pethidine and valium (diazepam), cannot betitrated according to the patient's need. These drugs instead are given, as a standard "bollus" dose. Post operatively the patients experience drowsiness, lethargy, and confusion due to the sedative effects. They therefore, demand alot of nursing care from the few nursing staff in the wards. The bed state is overburdened. The drugs used are expensive. It is for the above reasons that an alternative form of anaesthesia was thought necessary.

The alternative studied was "paracervical block anaesthesia" using 1% lignocaine solution. Paracervical block anaesthesia has been extensively used for relieving pain during the first stage of labour. Since Hedberg and Hokegard (1966)[6] published their experiencies with paracervical block anaesthesia, increasing interest in this method has been shown.

But in developing countries, where the need for this technique is almost certainly more urgent, only the reports of Coker[3], Chatfied[2] and Phillpot[12] are available. This shows that paracervical block has not been used as extensively as it appears to deserve, at least in developing countries. Thus this paper reports on the authors experience with this technique for evacuation of the uterus in the patients with incomplete abortions. And the following are specific objectives.

1. To determine the effectiveness and the complications of paracervical block anaesthesia for evacuation of incomplete abortions and relate these to age, parity and cervical dilatation.
2. To determine whether paracervical block anaesthesia can be developed as an outpatient procedure for evacuation of incomplete abortions.
3. To suggest other "selected" minor gynaecological operations which could be carried out under paracervical block anaesthesia on an outpatient basis.

METHODOLOGY:

A. TARGET POPULATION.

All patients being admitted at Muhimbili Medical Centre, gynaecology wards, were seen during the period of study.

B. STUDY POPULATION AND SAMPLING:

140 consecutive patients with incomplete abortions were included in the study. There was no pre-operative assessment of the suitability of patients for paracervical block anaesthesia: These patients were treated on the day of admission. They were all managed by the author.

The sensory inervation of the uterus and cervix is mediated by the visceral affarent nerve fibres, which run from the uterus and cervix to the 10th, 11th, 12th thoracic and 1st lumbar spinal segments. The nociceptive impulses can be interrupted at several levels, of which the paracervical region is one of the critical sites. The uterine plexus lies just lateral to the uteral-cervical junction, at the base of the broad ligament, while the pelvic plexus lies just lateral thereto. Both are easily accessible by passing a needle through the lateral vaginal fornices.

On admission, the patients' history was taken, and a physical examination was done. If found to have incomplete abortion, the patient was scheduled for evacuation immediately. There was no, shaving, premedication or diet restriction. The operations were done in a minor theatre, adjacent to the main gynaecological ward; under aseptic conditions. Those patients who had severe vulvo-vaginitis or septic abortion were excluded from the study. An explanation was given to the patient before the operation.

After scrubbing, the surgeon wore sterile gloves. No gowns were thought necessary. With the patient in lithotomy position, the vulva and vagina were cleaned with 5% cetrimide solution. The patient was draped. The bladder was emptied aseptically using a metal catheter. A careful bimanual examination was

done to confirm the previous findings. The cervix was exposed by using an Auvards speculum. The anterior lip of the cervix was then grasped with a single toothed Volsellum forceps. An Oxford pattern of paracervical needle was used to inject 10 mls of 1% lignocaine, very slowly, through the vaginal wall of each lateral fornix, approximately 1 cm from the cervix at 4 and 8 O'clock positions. Intermittent aspiration was performed before and during injection to ensure that, the paracervical blood vessels had not been inadverntly punctured. 3 to 5 minutes were allowed before curettage. The adequancy of anaesthesia was first tested by gently pulling on the Volsellum on the cervix before starting curettage. At no time was it necessary to give more than a total of 20 mls of the anaesthetic agent to produce the required degree of anaesthesia. No trial was made using a smaller amount of anaesthetic agent. Dilatation of the cervix was not necessary in the majority of the patients.

DATA COLLECTION PROCEDURES.

For each of the 140 patients, a record of the following was made on admission:- Name, Age, Parity and gestational age. A physical examination was done and the following recorded - palor, the fundal height, and cervical dilatation in centimetres. All these were done by the author. Throughout the time of operation, an assistant talked to the patient and reasured her. The surgeon made his assessment of the effect of anaesthesia while operating. To minimize observor bias, the patient's impression of the extent of discomfort during operation was also recorded by the nursing assistant. The analgesic effect was subjectively categorized as "excellent", "good", "satisfactory" and "poor". The patients described as "excellent" neither

moaned nor moved their limbs and pelvis throughout the operation. Those in whom the effect was satisfactory shouted during the injection of the local anaesthesia prior to curettage, but the operation was done. In those patients who had "poor" response the procedure had to be abandoned, and pethidine and valium given intravenously. After which the operation was successfully done. After the operation, the patients were observed for a minimum of 2 hours. After which, they were assessed if (a) they were fit for discharge, (b) they had any complications like fall in blood pressure, puncture of paracervical vessels, uterine perforation, severe anaemia. This duration for observation was taken in order to compare with the same duration of observation done elsewhere (Chatfield et al.[2]).

Because these operations were done at night, even those patients who had been discharged were allowed home the next morning. These patients were seen a week later to see if they had developed any complications, like post operative sepsis.

MATERIALS:

All the equipments used were those available in the gynaecology minor operating room. These included Volsellum forceps, sponge forceps, ovum forceps, uterine sound curette Auvards speculum gauze, cottonwool, and antiseptic solution. An Oxford pattern syringe and needle were used to inject 1% lignocaine solution. The data was filled in a questionnaire (attached). The operator's assessment of the effect was compared with the patient's opinion after inquiry by the nursing assistant.

RESULTS.

Table 1: SHOWING AGE DISTRIBUTION.

Age (Yrs)	No.	%
16 - 20	57	40.7
21 - 25	38	27.1
26 - 30	25	17.8
31 - 35	20	14.3
TOTAL	140	100.0

The majority of patients encountered belonged to the age below 25 years. No patients were above 35 years of age, (Table 1). The commonest age group was 16 - 20 years.

Table II: SHOWING PARITY DISTRIBUTION:

Parity	No.	%
0	57	40.7
1	18	12.8
2	27	19.3
3	13	9.3
4	15	10.7
5	10	7.1
TOTAL	140	100.0

Most of the patients were of low parity. The commonest group was the primigravidae, (Table II).

Table III: SHOWING THE EFFECTIVENESS OF LOCAL ANAESTHESIA.

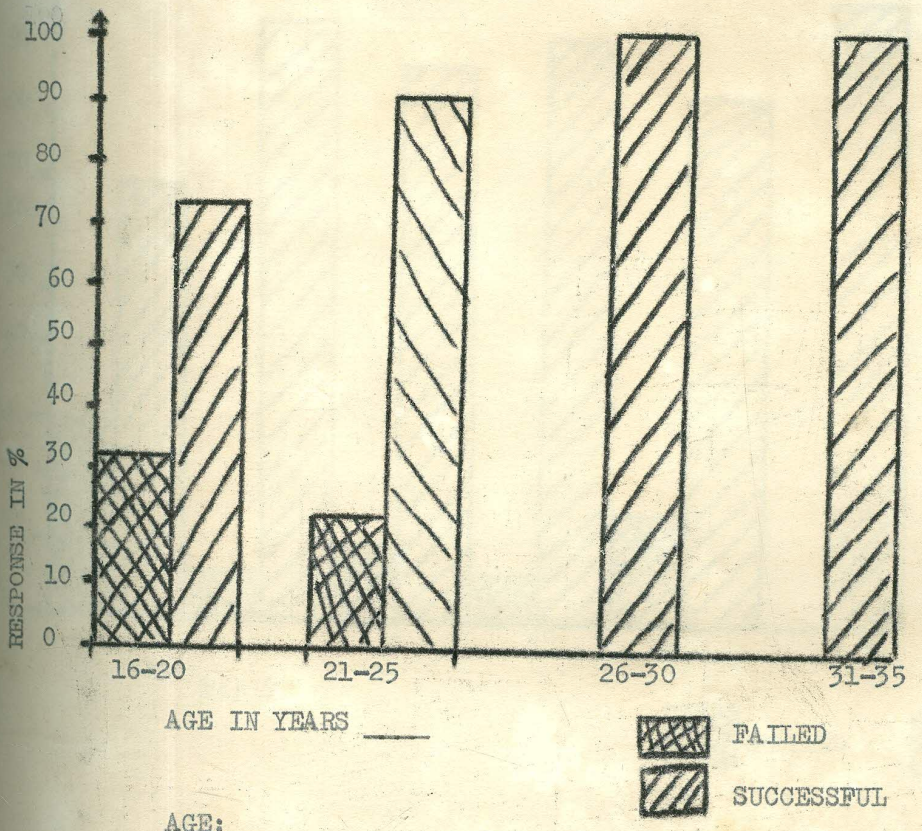
Effectiveness	No.	%
Excellent	51	36.4
Good	47	33.6
Satisfactory	17	21.1
Poor	25	17.9
TOTAL	140	100.0

EFFECTIVENESS:

Paracervical block anaesthesia allowed curettage to be performed successfully in 115 (82.1%) of the 140 patients (Table III). The operator's assessment of the effectiveness of paracervical block anaesthesia was quite comparable to that of the nursing assistant. The post operative care of the patients was less demanding on the nursing staff, as the complications of sedation were avoided.

71.1% of the patients were fit for discharge 2 hours post operatively.

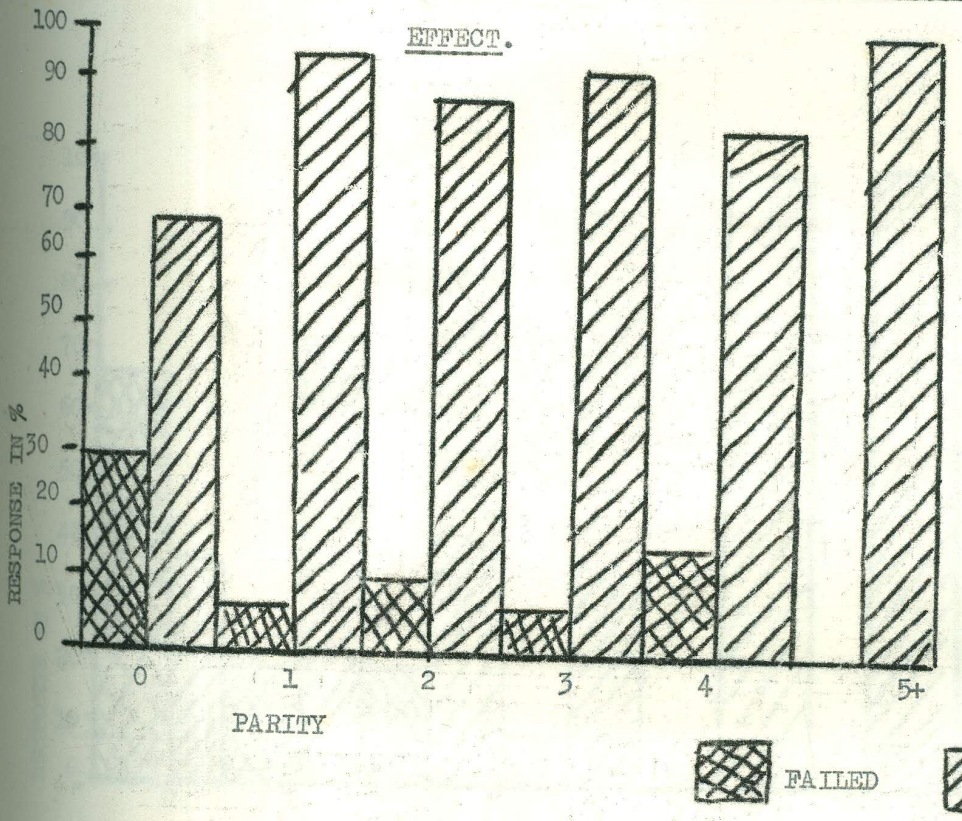
Figure I: RELATIONSHIP OF EFFECTIVENESS WITH AGE:



AGE:

There was an increasing success rate and diminishing failure rate with age. The highest failure rate was in group 16 - 20 years, with no failures recorded after 25 years of age. (Figure 1).

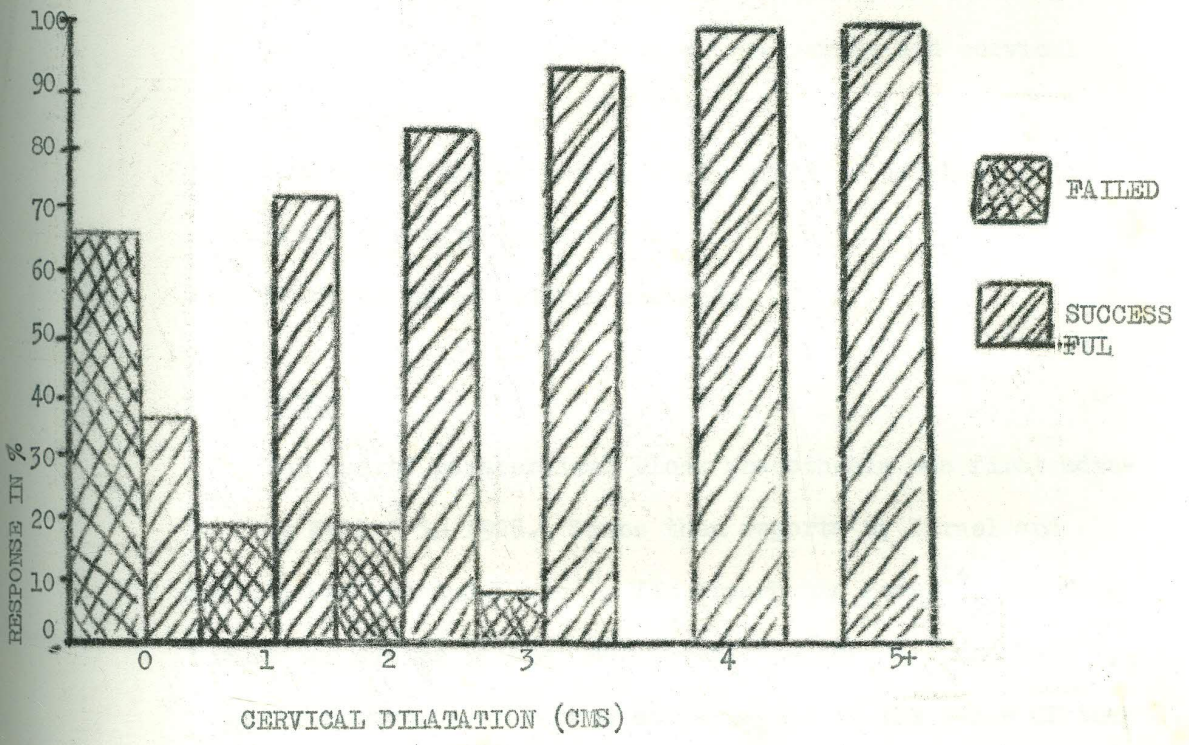
Figure 2: SHOWING PARITY PLOTTED AGAINST THE ANALGESIC EFFECT.



PARITY:

There was an increasing success rate with increasing parity. The highest failure rate was found in the nulliparous women (Figure 2). There were no failures after parity 4.

Figure 3: SHOWING CERVICAL DILATATION PLOTTED AGAINST THE ANALGESTIC EFFECT:



CERVICAL DILATATION:

There was an increasing success rate and diminishing failure rate with increasing cervical dilatation. The highest failure rate was recorded in the cervices which were closed, and no failures after 3 cm of cervical dilatation. Figure 3 shows the dilatation of the cervix plotted against the analgesic effect.

COMPLICATIONS:

No major complications were encountered. There was minimal bleeding at the puncture site. There was no fall in blood pressure and no haematoma formation. None of the patients had infection.

SUMMARY OF RESULTS:

1. Paracervical block anaesthesia allowed successful curettage in 82.1% of patients.
2. There was an increasing success rate and diminishing failure rate with increasing age, parity and cervical dilatation.
3. Out of the 140 patients, 71.1% could be discharged two hours after the operation.
4. No major complications occured.

DISCUSSION:

The use of paracervical block anaesthesia was first advanced by Kelly[8] in 1925. Since then reports by Israel and Mazer[7], Mengret and Slate[10], Van Praagh and Povey[14], all from the United States of America, Mickulicz-Radechi[11] and Raid[13], from the Soviet Union - have all attested to the value of this procedure in the management of women who require minor pelvic surgery. Little has been written about the use of paracervical block in the developing countries. Only the reports by Coker[3], Chatfield[2], Aimakhu[1] and Philpott are available. Aimakhu[1], Chatfield[2] and Philpott[12] had used this method for evacuation of the uterus in patients with incomplete abortion.

The present study was not controlled. Therefore rigid conclusions cannot be put forward, but some reasonable observations have been made. The success rate of 82.1% (excellent, good, satisfactory) is in accordance with the findings of other authors. Littlepage[9] reported a higher success rate (90%) while studying the effectiveness of this technique on minor gynaecological operations. This may be explained by the fact

that, his choice of patients was limited to only those patients who had opted for the local anaesthesia, and, were easy to examine bimanually. Whereas in the present study the patients were selected randomly. Chtfield et al.[2] in Kenyatta National Hospital, Van Praagh and Povey[4] (1966 - 67) also found paracervical block anaesthesia to be quite effective and safe in curettage for their patients with incomplete abortions. Hahn[6], on studying obstetric patients in labour came out with a success rate of 90% of his patients. The relationship of increasing age and parity with tolerance to local anaesthesia in this study, is strongly in agreement with the findings of Philpott[12], who also found the highest failure rate in the young multiparous patients. This may be explained by the fact that, the young multiparous women become anxious at operation, and their cervices to do not allow easy dilatation. Both these findings are however, in disagreement with those of Aimakhu et al.[1] In their study of patients undergoing minor gynaecological operations, they found that, the age and parity did not influence either the tolerance or the effectiveness of the technique. His study however did not include curettage for incomplete abortions.

The findings in the present study, of increasing effect with increasing cervical dilatation are strongly in disagreement with those of Hahn[6]. He found a decreasing effect with increasing cervical dilatation. This discrepancy can be explained by the fact that, his study population was pregnant mothers who were in various stages of labour. During labour, with increasing cervical dilatation, there is an increasing difficulty in correct administration of the local anaesthetic

agent as the presenting part approaches the pelvic floor. This problem does not occur with the gynaecologic patients. No adverse effects were observed in the doses and methods selected. True allergic reactions to local anaesthetic agents are, said to be extremely rare[4]. Such reactions are mainly due to, epinephrine or preservatives in the local anaesthetics, and, inappropriate use of local anaesthetic agents.

The essence of this regimen was to ensure a cheap, safe, minimal admission, treatment, discharge interval. That this was achieved to a highly satisfactory degree, is shown by the fact that it was possible to discharge 71.1% of the patients with incomplete abortion, within 2 hours after the operation. This finding shows that this method can be used as an outpatient procedure for patients with incomplete abortions. This proposition is supported by the findings of Mengret and Slate[10]. Gallinat[5] et al. have gone further to use this method for termination of first trimester pregnancy on outpatient basis. In their study they found that, (a) paracervical block anaesthesia allowed painless dilatation of the cervix and evacuation of uterus, (b) the patients could be discharged earlier after a brief hospitalization period, (c) treatment on outpatient basis was possible and cost saving.

Aimakhu[1] et al. have used this method with success in diagnostic dilatation and curettage, biopsy and cautery of the cervix, cervical polypectomy, and suturing of coital vaginal laceration. If necessary precautions are taken, and the patients not suitable for paracervical block anaesthesia are excluded, the method is safe, cheap, effective and causes minimal discomfort to the patients.

It is hoped that this preliminary communication may

stimulate further controlled studies on (a) application of this technique as an outpatient procedure, (b) application of this technique for other minor gynaecological operations.

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QUESTIONNAIRE - PARACERVICAL BLOCK.

1. Name: ..... Age: .....

   Parity: ..... I.P. No: .....

2. L.M.P. GESTATION (a) Dates: .....

   (b) F.H.P. .....

3. Emotional status: .....

4. Cervical dilatation (cms): .....

5. OPERATION: (a) Duration: .....

   (b) Blood loss estimation: .....

   (c) Complication/s: .....

   (d) Painful: YES/NO .....

   If YES: (i) Slight: .....

   (ii) Moderate: .....

   (iii) Severe: .....

   (iv) Duration of pain

   (Minutes) .....

   Following morning: YES/NO:

6. If the procedure is to be repeated would you prefer to have sedation assuming that it would mean a one day hospital stay: YES/NO: .....

COMMUNITY OBSTETRICS COMMENTARY

DETECTION AND MANAGEMENT OF AT RISK PREGNANT MOTHERS ATTENDING MCH CLINICS IN SELECTED RURAL HEALTH CENTRE IN IRINGA AND MUFINDI DISTRICTS IN JANUARY/FEBRUARY 1982.

ABSTRACT:

Survival of the baby and/or mother depends on the care provided at antenatal, natal and post-natal periods. 234 pregnant women were studied to find out, the gestational age at first visit; detection and management of at risk mothers in four rural health centres. The gestational age at first visit was low (mean 21 weeks). History was obtained, examination were either incomplete or incorrect in [illegible] patients. The investigator and the MCH aides agreed on the gestational age [illegible] assessments. Out of the 23% of attenders at risk of obstetric complications, 5% were detected by MCH aides. The MCH aides' decision for referral was good. Considering the poor facilities and the few MCH aides in these health centres the patient management was satisfactory. This may explain why the perinatal mortality in Iringa district is lower (55.4/1000) than Tanzanian estimate of between 60 - 90/1000. Both of these are however, much higher than Britain which had 20.6/1000 in 1973. The constraints include inadequate, staff, facilities and supplies. It is hoped that better results will be achieved if, the number of staff is increased and the few MCH aides are motivated equipments are provided and maintaine, and, supplies are adequate and regular.

PART IV: COMMUNITY OBSTETRICS COMMENTARY.

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INTRODUCTION:

Pregnancy and child birth being normal physiological processes should if properly cared for, be uneventful. Where there are high rates of maternal and perinatal morbidity and mortality the message is poor obstetric health, since conditions prevailing in the antenatal period may cause maternal deaths and/or fetal deaths in utero or early neonatal deaths and morbidity.

In Tanzania the antenatal care is provided in MCH clinics, which were established in 1974[7], with the main aim, broadly, of "delivering a health mother of a healthy baby" mainly by picking up at risk pregnant mothers and referring them to better equiped centres, advising them on, where to deliver, nutrition, hygiene, child welfare and family planning. At these MCH clinics pregnant mothers are also provided with, supplements of iron, folic acid, antemalarials, immunizations, and postnatal care. Such standardized antenatal management of pregnant mothers in rural areas never existed before establishment of intergrated maternal child health services. Now this is provided for by MCH aides, and, these are class seven leavers who undergo a full time two year training at a training plus a six months period of practical supervision. After this they are supposed to provide services at intergrated MCH clinics as outlined above.

Such services in Tanzania are utilized by 70 - 80% of child bearing females[8]. Despite the high coverage, and the well organized MCH clinics, the indicies for obstetric care in Tanzania today are considered not very different from what they were before introduction of MCH clinics. These indices for obstetric care today in Tanzania are estimated at a maternal mortality of

190/100,000 births and a perinatal mortality of between 60 - 90/1000 live births[6]. Is the care provided in these clinics adequate, if it is not, what are the constraints, is it the facilities? Is it the pressure of work due to poor staff? There is very little literature on management of pregnant mothers in rural areas. Thus, this study was done to; examine the detection and management of at risk pregnant mothers attending MCH clinics in four rural health centres in Iringa and Mufindi districts, and make recommendation of improvement of these MCH services.

SPECIFIC OBJECTIVES:

This study was done with the following specific objectives:

1. To determine the gestational age of antenatal attenders at antenatal booking using the present antenatal card.
2. To determine the completeness in filling the antenatal cards by MCH aides, and frequency of agreement and disagreement on physical examination between the MCH aides and the investigator.
3. To determine the detection rate of at risk pregnant mother by both the MCH aide and the investigator using the present antenatal card.
4. To determine the proportion of at risk pregnant mother in whom the right decision and action have been instituted.
5. To determine some factors like type of training, transport equipment and workload, which influence the efficiency in MCH clinic services.
6. To suggest ways of improving care provided by the primary health services.

METHODOLOGY:

A. TARGET POPULATION:

Iringa and Mufindi districts with an average are of 28619 and 7119 square kilometers respectively[3] are situated in Iringa and Mufindi respectively[2]. Like most of Tanzanians, these are mainly peasant farmers with an annual income per capita of about 1978 (T) Shillings. The dormiant religion is christianity.

B. STUDY POPULATION AND SAMPLING:

All rural health centres with MCH aides in the two district were listed. Four rural health centres were selected using random sample tables, three from Iringa and one from Mufindi district. The rural health centres samples were Ismani, Kiponzero and Kidabaga which are 35, 35 and 50 kilometers respectively from Iringa town, and Malangali which is 40 kilometres from Mafinga town, the Mufindi district headquarters. All these rural health centres have daily MCH clinics with an average attendence of 74 per day for Iringa rural health centres and 140 per day for Mufindi rural health centres, and therefore 3529 and 2863 attendancies per month for Iringa and Mufindi districts[4] (per one rural health centre). In both areas there was an average of 11 antenatal visits per day and an almost equal number of child health visits.

Each health centre had only one MCH aide for all the activities held in an intergrated MCH clinic. A total of 234 pregnant mothers were studied and their background information is shown in table 1.

Table 1: SOME BACKGROUND INFORMATION ON WOMEN ATTENDING THE ANTENATAL CLINICS.
(N = 234)

Ethnic group: Hehe	73.7%
Mean age of women:	23.6 Years
Mean educational level: Yrs Scholling	2.8 years
Unmarried women	5.3%
Visits to clinics for current pregnancies: First visit	25.6%
Second visit	28.6%
Three or more visits	45.7%
Estimated age at booking - Mean	20.9 Wks
Mode	20.22

Most of the women were of lower parity (mean parity 2.2). 48.7% (114) were illiterate.

C. DATA COLLECTION PROCEDURES:

The MCH aides concerned were not told that the investigator was looking into how they provided health services in their centres, because this would cause behavioural changes in recording the antenatal cards during the study period.. Fifty cards filled in before the study period were compared with those filled in during the study period to see if there was any difference. No difference was found. Every morning all pregnant mothers after being seen by the MCH aide, were then interviewed and examined by the investigator in a separate room. The patient's cards were scrutinized before the investigator entered his findings into thecards, thses findings were compared with those of the MCH aide.

The gestational age as recorded at first visit was also noted. The management of at risk pregnant mothers was also compared with that of the investigator. In addition every woman was asked her date of next visit just before she left the clinic. The number of times the MCH aide missed important history, physical examination, or what she did or did not do was dangerous to the patient concerned was noted.

MATERIALS:

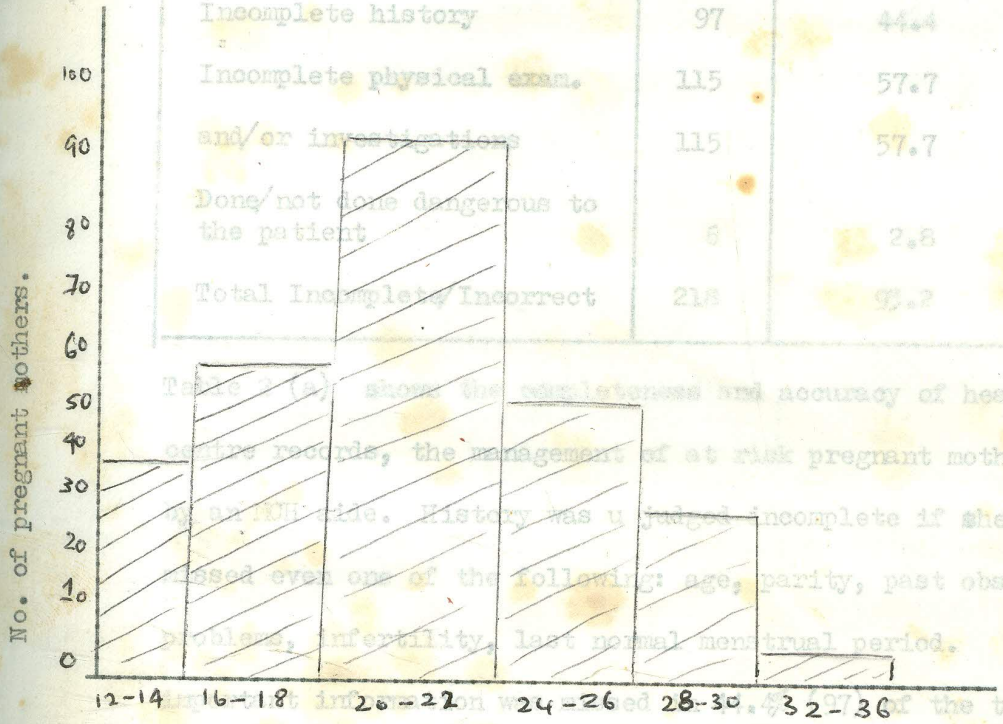
Facilities available at the health centres e.g. blood pressure machine, weighing machines were the ones used in this study. The investigator did not carry any instruments other than a pen, ink and paper.

The information obtained was filled a questionnaire (see attached). The selected health centres were visited using either the District Medical Officer's Landrover or the vehicle belonged to the Tanzania Society for the Blind whenever any of these vehicles were going to the health centres. The investigator did not incur any transport costs.

RESULTS.

25.6% (60) of the antenatal attenders had their first booking during the study period, 28.6% (67) were on their second visit, and 45.7% (107) had paid three or more visits to the MCH clinics.

Figure 1: A HISTOGRAME OF FREQUENCY DISTRIBUTION OF MOTHERS ATTENDING ANTENATAL CLINICS IN RELATION TO GESTATIONAL AGE AT FIRST VISIT (IN WEEKS)



ESTIMATED GESTATIONAL AGE AT FIRST VISIT (IN WEEKS)

Figure 1: shows the estimated gestational age at first visit. Mean gestational age at first visit is 20.9, mode is 20 - 22 weeks.

Table 2(a): SHOWING ACCURACY AND COMPLETENESS IN RECORDING, PHYSICAL EXAMINATION AND MANAGEMENT OF AT RISK PREGNANT MOTHERS BY AN MCH AIDE:

	No.	% of total seen
Incomplete history	97	44.4
Incomplete physical exam.	115	57.7
and/or investigations	115	57.7
Done/not done dangerous to the patient	6	2.8
Total Incomplete/Incorrect	218	93.2

Table 2 (a) shows the completeness and accuracy of health centre records, the management of at risk pregnant mothers by an MCH aide. History was u judged incomplete if she missed even one of the following: age, parity, past obstetric problems, infertility, last normal menstrual period. Much important information was missed in 44.4% (97) of the total pregnant mothers attending antenatal clinics. Physical examination and/or investigation included any of the following: height, weight, blood pressure, haemoglobin estimation at least once at any one visit, testing for oedema, albumin at least once. By this description, physical examination and/or investigations were not properly done in 57.7% (115) of all antenatal attenders. Dangerous things done or not done to the patient included, one patient with history suggestive of cephalopelvic disproportion, one patient with a height of less than 150 cms and not referred for pelvic assessment at 36 weeks of gestation, one patient with a bad obstetric history,

one patient with a breech presentation at 34 weeks of gestation. One with a fundal height smaller than dates, and, one with a history of involuntary failure to conceive for ten years.

Table 2 (b): FREQUENCY OF AGREEMENT AND DISAGREEMENT IN FUNDAL HEIGHT ESTIMATION BETWEEN THE INVESTIGATOR AND MCH AIDE (ALLOWANCE OF 2 WEEKS DIFFERENCE):

	No.	%
Agreement	141	60.2
Disagreement	89	38.0
No record	4	1.7
TOTAL	234	100.0

Table 2 (b) shows the frequency of agreement and disagreement in estimation of the fundal height between the investigator and the MCH aide.

There was a tendency for a smaller figure by the MCH aides.

Table 3: COMPARISON OF DETECTION RATE BETWEEN THE MCH AIDE AND THE INVESTIGATOR.

		INVESTIGATOR (STANDARD) AT RISK +	NORMAL -	TOTAL
MCH AIDE SCREENING	+	33(TP)	4(FP)	37
	-	27(FN)	170(TN)	197
	TOTAL	60	174	234

TP = TRUE POSITIVE

FN = FALSE NEGATIVE

FP = FALSE POSITIVE

TN = TRUE NEGATIVE

VALIDITY:

SENSITIVE = 55%

SPECIFICITY: = 97.7%

Table 3 compares the detection rate of at risk pregnant mothers between the investigator and the MCH aide. The proportion of at risk pregnant mothers detected is 25.6% out of which 55% were detected by the MCH aide also.

Table 4: COMPARISON OF THE RATE OF REFERRAL BETWEEN THE INVESTIGATOR AND THE MCH AIDE:

INVESTIGATOR (STANDARD)

		+	-	TOTAL
MCH AIDE SCREENING	+	26 (TP)	1 (FP)	27
	-	6 (FN)	27 (TN)	33
TOTAL		32	28	60

VALIDITY: SENSITIVITY 81%

SPECIFICITY 96.4%

Table 4 compared the rate of referral between the MCH aide and the investigator. When it came to referral the MCH aide was almost just as good as the investigator.

Just before the pregnant mother left the clinic she was asked about the date of her next visit. 43.6% (102) of the pregnant mothers did not know their dates of next visit, but expected to ask either their husbands or neighbours to read the dates from the antenatal cards for them.

ASSESSMENT OF PERSONNEL, EQUIPMENT SUPPLIES AND THE HEALTH FACILITY:

1. PERSONNEL:

There was only one MCH aide in each health centre visited and was responsible for registration, weighing of mothers and children, examination/advice, immunization and dispensing.

2. EQUIPMENT AND SUPPLIES:

a) Antenatal cards were only available in one health centre.

b) Height and weight measures were available in two health centres, out of the order in one, and were not there at

all in another.

c) There was neither blood pressure machine nor fetoscope in one rural health centre.

d) Transport was avaialble (Landrover) ,in three rural health centres, and one health centre had no means of transport at all.

e) All refridgerators were working except in one rural health centre where they had stopped using it due to lack of Kerosene.

f) In the labour ward there were neither vacum extractor (Ventrouse) nor wall clocks.

g) All rural health centres had run out of papers for haemoglobin estimation during this period.

h) Drug and glove supply was adequate.

3. HEALTH FACILITIES:

Three of the rural health centres were very new and only lacked electricity. One of the health centres was very old and difficult to keep clean.

SUMMARY OF RESULTS:

The most important findings from the results are:

1. Mean gestational age at the first antenatal visit is 20.9 weeks, mode is 22 weeks.

2. a) Important history was missed in 44.4% (97) of attenders.

b) Physical examination and/or investigation were incomplete in 57.7% (115).

c) Things were missed and dangerour in 2.8% (6) of all the patients.

d) In estimation of gestational age by fundal height the investigator and MCH aide agreed in 60.2% of times.

The MCH aide had a tendency at estimating lower figures of gestation.

3. a) Proportion of pregnant mothers at risk in this particular population is 25.6% out of which the MCH aide identified 5%.

b) MCH aide had a high threshold at detecting the at risk pregnant mothers but could identify those not at risk very well.

4. Her decision for referral was almost as good as the investigator's.

5. The number of MCH aides, equipment and supplies were inadequate for these rural health centres.

DISCUSSION:

The study has concentrated on the problem of antenatal care and the constraints involved. Though the sample size is too small to make any rigid conclusions, some reasonable observations have been made.

The background information reveals that very few unmarried pregnant mothers attend antenatal clinics. This may be because unmarried women who conceive delay in attending antenatal clinics or never attend at all.

The mean gestational age at first antenatal visit of 20.9 weeks is very mush lower than those found by Malangalila[5] (1978) and Davies and Loohhead[1] (1975) who working separately came out with a figure of 28 weeks. The possible explanation for this may be the type of population studied and the time of study. Both above studies were done more than four years ago so that there has been a positive change in modern health acceptance and health services. It is also noted that this

study includes a majority of young age group (mean age 23.6 yrs) and low parity (mean parity of 2.2). The young age are more enlightened group and therefore attend antenatal clinics earlier. On the other hand, the low parity, could besides being due to the young age, also be due to those women who have had past obstetric catastrophies and therefore with a tendency of attending antenatal clinics earlier in the following pregnancy.

In the majority of patients studied (98.1%) there was unsatisfactory recording, physical examination/investigations and management. This leads to low detection rate (25.6%). The two major reasons for unsatisfactory recording and physical examination and investigations are, firstly, work overload which made the single MCH aide fail to afford enough time interviewing or examining, the patients thoroughly so that things were done hurriedly, and secondly, lack of equipments like blood pressure machines, weight and height measures, haemoglobinnometers and foetoscopes, made physical examination incomplete.

In very few cases, the problem was due to carelessness of the MCH aide herself. The MCH aides did not record rightly the fundal height in 36.8% of pregnant mothers because of poor technique and failure to relate fundal height with gestational age by dates. This was mainly because they did not record the last normal menstrual periods so they did not know the gestational age by dates.

The MCH aides had very high threshold for identifying at risk pregnant mothers, but identified those not at risk very well (specificity 98%, Sensitivity 55%).
The MCH aides had both high sensitivity and specificity (81%, 97%) om referra; at rosl pregnant mothers. Despite the good

performance by the MCH aides, surprisingly the mortality rates are still high[6]. May be, poor, staffing, equipment and supplies adversely affect their efficiency. On the other hand do the referred mothers follow the instructions given .

CONCLUSIONS AND RECOMMENDATIONS:

On the basis of these findings only, the following are the conclusions and recommendations:

i) For the MCH aides (a) the present antenatal cards are one of the best instruments for quick screening of at risk pregnant mothers and providing treatment especially where there is a heavy turn over of patients. It is therefore important that (i) these cards are available all the time, for using improvised ones leaves out a lot of vital information and is inconvenient. Somthe MCH aide should secure the cards long before they are out of stock. The same applies to other supplies.

ii) Once these cards are available, should be filled more properly and completely, otherwise they will not achieve the purpose intended.

(b) Recording of statistic summaries is far from proper, yet an essential part of planning. These MCH aides do not seem to understand the importance of these statistics.

(c) The problem of patient load can be reduced by the MCH aide arranging for two sessions a day that is one starting from morning to noon, and another session starting from the afternon to evening, rather than hurriedly seing all the patients from morning to mid-day only.

(d) Careful handling of equipment is very important. The MCH aide must be familiar with careful handling of instruments like refridgerators, weighing machines etc., and should be

able to carry minor repairs in case of fault.

2. District heads of MCH services (DMO and MCH Coordinator) should; (a) Make sure supples are regular sent to the rural health centres (b) Educate the MCH aides repeately on the importance of keeping proper statistics and other records, and once such statistics are forwarded to them should be a system of feedback to the rural health centres so that the primary health workers can see where their service stands compared to other areas in the District or Region. (c) Properly allocate the few MCH aides to places where they are needed most; like rural health centres and dispensaries. (d) Supervise the primary health workers in order to educate them and promote standards. Such district head could spend sometime in the clinic at a rural health centre seing patients together with the MCH aide or medical assistant and discuss the probem patients. At the time of this study for instance all forms of visits by either the District Medical Officer or the MCH Coordinator had been suspended. (e) Motivate the MCH aides in the rural areas by continued education through clinical meetings, seminars inservice training and reading materials. (f) Arrange for a member of a health facility preferrably the one using the instruments, to be trained on minor repairs of the various instruments and leave major repairs for better trained people. Organize a system of feedback to primary health services on the patients they have referred (i.e. what has been done and follow up).

3. For the Ministry of Health: (a) Step up training of MCH aides according to demand so as to alleviate the problems

of understaffing.

(b) Should ensure regular supplies to regions long before these are out of stock. (c) Should plan for an efficient feedback of statistics to the regions. (d) Should in collaboration with Muhimbili Medical Centre organise regular refresher courses for MCH coordinators.

4. For researchers: Very scanty literature is available on provision of antenatal care in rural Tanzania. This study, though first of its kind in Tanzania is a very small covering only four health centres in Iringa and Mufindi districts and is intended to stimulate further studies on (a) a broader study on the provision of antenatal care in Tanzania (b) what has happened since the introduction of intergrated MCH clinics in Tanzania in 1974 (c) what happens to the patients referred by MCH services to other centre, do they for instance all go to the referred centres, or if they go do they benefit from these referral etc.

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