OBSTETRICS AND GYNAECOLOGY

CASE RECORDS and COMMENTARIES:

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INTRODUCTION:

Muhimbili Medical Centre offers specialist and consultant medical services to the whole of Tanzania. It is the largest of the three consultant hospitals and has such facilities as Radiotherapy and a Central Pathology Laboratories which are not available in other hospitals. The Centre provides medical undergraduate and post-graduate training and Diploma and Certificate courses in nursing and Paramedical studies. There is also training for dental surgeons and Pharmacists.

The Centre offers clinical services in Surgery, Paediatrics, Internal Medicine and Obstetrics and Gynaecology department consists of two gynaecological wards with a capacity of about 70 beds and a maternity block with two antenatal wards, and intensive care labour wards. There is also a normal labour ward situated at the Ocean Road hospital where a ward for the uncomplicated, pregnancies and deliveries is also available. The intensive care labour ward only takes care of high risk pregnancies either from the antenatal clinics or referred from Ocean road hospital or other peripheral hospitals.

Obstetric Services:

Consultant antenatal care and delivery of the high risk pregnancies are done at the Muhimbili Maternity unit while all normal deliveries are done at the Ocean Road hospital and antenatal care for low risk pregnancies is done at peripheral clinics. There are, however, permanent resident doctors and interns in attendance at the Ocean Road hospital whose duty is to supervise the deliveries and spot out any developing high risk factor so that there is immediate action in terms of either treatment or transfers to the high risk labour ward. At the high risk labour ward there is a consultant or specialist and a resident on duty for twenty four hours per day and an intern on duty on a twelve hour shift.

Antenatal Care:

Antenatal care is provided at the peripheral clinics where it is conducted by midwives. The main aims are selection of the high risk pregnancies and their referral to the high risk antenatal clinic, supervision of uncomplicated pregnancies and give advice on nutrition, prevention of malaria by prophylaxis, administration of haematinics to maintain adequate haemoglobin and health education.

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Most of the patients who present at the high risk clinic have been referred from peripheral clinics due to some high risk factor although a few of them attend this special clinic only for social reasons.

Some of the indications for referral to the high risk clinic include:-

1) Past Obstetric History of
   a) Abdominal delivery
   b) Vaginal operative delivery
   c) Complicated third stage of labour
   d) Perinatal death
   e) E.P.H. gestosis
   f) Gravida 8 and above

2) Present history of
   a) Age above 35 and Primigravida (Elderly Primigravida)
   b) Age below 16 years (underage)
   c) Short stature below 145cm.
   d) Spine, hip, or pelvic deformity
   e) Antepartum haemorrhage

3) Maternal disease including
   a) Hypertension
   b) Renal disease
   c) Cardio-pulmonary disease
   d) Anaemia less than 8.5g/dl
   e) Diabetes Mellitus
   f) Tumours - ovarian or fibroids

4) Foetal conditions including

a) Twins or triplets

b) Malpresentation

c) Polyhydramnios

d) Intra-uterine Growth Retardation or Fetal death.

The nurses conducting the peripheral clinics are at liberty to refer patients whenever they feel necessary for any other reason including patients' worry about diminished fetal movements.

The procedures at the antenatal clinics include the taking of history, examination and some laboratory investigations. The age, parity and past obstetric history of the patient is recorded. Any Medical history of Diabetes Mellitus, Tuberculosis or cardiovascular disease is noted. All past obstetric complications are noted in detail.

The patient is weighed in each visit, the Blood pressure is recorded. Any evidence of oedema is noted and signs of anaemia are looked for. Her general nutritional status is noted. At the high risk clinic the chest and heart are examined and the abdomen is palpated for any spleen or liver enlargement.

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In both clinics the fundal height, lie and presentation of the foetus is noted and foetal heart beats are recorded. The patient's urine is examined for sugar and protein. The blood group and Rhesus status is determined and serum is sent to the laboratory for Veneral Disease Research Laboratory test for syphilis. The patients haemoglobin is determined monthly. Ultrasound and radiological services are available for selected cases only.

Where everything is normal the patient is seen monthly till the 28th week of gestation thereafter fortnightly till 36th week and then weekly to term. Three doses of tetanus toxoid are given at 28th week 32nd and 36th week of gestation. More frequent visits may be indicated in special cases such as mild EPH gestosis, Cardiac disease Grade I (New York Heart Disease Classification) or previous bad obstetric history. Iron and folic acid and Malaria prophylaxis are given in each visit for use at home. Plan for mode, time and place of delivery is made during antenatal care and the patients are admitted if necessary for treatment of any Pregnancy complications.

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ANTENATAL ADMISSION:

Cases needing admission are determined by the high risk antenatal clinic or are referred for admission from the peripheral clinic on an emergency basis. The bulk of the admissions consist of anaemia patients, who form more than 50%. Second to anaemia are patients with hypertension in pregnancy who form about 25% and the rest will include those with antepartum haemorrhage, Premature labour, cardiac disease and the like. Treatment of the anaemia patients is individualised depending on the Haemoglobin level, gestation of pregnancy and condition of the patient. They may receive blood transfusion and / or intravenous total dose Imferon and oral folic acid. A full blood picture including red cell morphology is sometimes necessary for diagnosis and rarely in unresponding cases bone marrow, liver function tests and Renal function tests may also be carried out.

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INTRAPARTUM CARE:

All patients are advised to deliver in the hospital so that there is overcrowding of the labour wards. The normal pregnancies deliver at the Ocean Road Hospital while the high risk pregnancies are delivered at the high risk intensive labour ward. The process of labour is sometimes observed graphically as described by Philpott. The time of arrival to the hospital is regarded as zero time and only the active phase of labour is plotted. The progress is allowed a speed of cervical dilatation of 1cm/hour.

A line is drawn on the chart at the appropriate time and dilatation with a gradient of 1cm/hour. This is the alert line. Another line is drawn 4 hours to the right and parallel to the alert line and this is called the action line. The alert line is drawn 3 hours to the right of the actual mark to allow for a slightly slower dilatation rate. These lines act as guides in timing the action to be taken such as augumentation of labour with syntocinon, caesarean section and vacuum extraction.

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Descent of the foetal head is plotted on the partogram by assessing the number of fifths of the head above the pelvic brim. The strength duration and frequency of contractions are plotted and recorded. The state of fetal membranes and colour of liquor are also recorded. The foetal heart rate is recorded half hourly in normal cases and 1/4 hourly in those women with high risk factors.

An attempt to maintain aseptic conditions is made by daily washing the labour ward floor with lysol and using sterile rubber gloves for vaginal examination and delivery. Chlorhexidine antiseptic cream 1% is used during vaginal examination and deliveries; masks and gowns are not worn.

Assisted Breech deliveries, vacuum extraction and forceps deliveries are done on obstetric couches in the second stage room. In this room a resuscitation trolly with oxygen, ambu bag, respirators, mucus extractors laryngoscopes and endotracheal tubes is present.

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Induction of labour, preparation of patients for caesarean section, trial of labour or scar and any other patient needing extraspecial attention are conducted in room one by a specially allocated trained Nurse midwife.

The delivery tray consists of sterile gauze pieces, sterile rubber gloves, antiseptic solution, a pair of scissors for episiotomy and cutting of the cord, two pairs of long artery forceps and a syringe and needle containing 0.5mg. ergometrine.

The third stage of labour is managed actively with ergometrine at the delivery of the anterior shoulder and a controlled cord traction with the first uterine contraction after the 2nd stage of labour except where contraindicated as in cardiac disease.

POSTNATAL SERVICES:

All normal deliveries are discharged after 24 hours. Their newborns receive B.C.G. vaccination before discharge. All complicated deliveries are kept in hospital for a varying period of time depending on the problem.

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There are two postnatal wards, one for clean hospital delivered patients and another for septic and home delivered patients. All women with complicated deliveries are given an appointment to a postnatal clinic six weeks later where they are checked to see whether uterine involution is complete, all wounds have healed and that their health is back to normal.

GYNAECOLOGICAL SERVICES:

The Gynaecological outpatient clinic consist of patients referred from hospitals, health centres and clinics around the town and also from various regions all over the country. It is run by residents specialists and consultants daily. Patients requiring inpatient treatment are admitted while others are seen by appointment regularly. Other patients are admitted directly from other hospitals for specific treatment like Radiotherapy for carcinoma of cervix or for emergency treatment such as laparatomy for ectopic pregnancy.

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The turn over of patients is very high. The bulk of patients consist of patients with incomplete abortions who are evacuated and discharged after 24 hours. Evacuation of the uterus of patients with incomplete abortion is done in a side room modified into a minor theatre and situated in one of the Gynaecological wards. Those patients whose cervices need dilatation and the septic cases are evacuated in the ordinary operating theatre. For the majority of patients Pethidine 100mg. and valium 10mg intravenously is used for analgesia.

There are four firms each operating in the main theatre once a week. Patients needing major or minor elective operations are therefore operated on one of these days. There is in addition to the normal clinics an infertility clinic and a family planning clinic each once a week. These clinics are also run by consultants and residents.

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SPECIAL PROCEDURES:

In the cases to be presented the procedure detailed below were done in the described way unless otherwise stated in the case. They will be described here once and reference will be made to this description whenever necessary.

VAGINAL EXAMINATION:

Examination during labour is done after the hands have been scrubbed thoroughly with soap, water and a boiled brush. Sterile rubber gloves are worn on the right hand and the patient is put on the dorsal position, kneesflexed thighs abducted; thereby the perineum is exposed. A sterile swab soaked in savlon 1:20 is picked with the right hand and handled to the left hand. The swab is used to clean the left labia anteroposteriorly. The procedure is repeated for the right labia with a fresh swab. The labiae are then held apart using the left hand's index finger and thumb. A third swab is picked and using the right hand the nitroitus is cleaned anteroposteriorly. Still with the labiae held apart the middle and index finger of the right hand are dipped in chlorhexidine cream 1% and then introduced into the vagina to perform the examination.

CLINICAL PELVIMETRY:

For pelvic assessment the middle and index finger of the right hand are passed into the vagina until the tip of the middle finger impinges on the promontory or fails to do so. the forefinger of the other hand marks off the lower margin of the subpubic ligament. The distance between the tip forefinger is measured and is the diagonal conjugate of the inlet. The pelvic cavity is assessed by palpating the depth of the sacral concavity and the prominence of the ischial spines. The ischial spines are palpated and the sidewalls infront of the spines are felt. Any tendency to convergence of the sidewalls is noted and the bispinous distance is estimated. The outlet is then measured by estimating the subpubic arch which is usually about 85°. The intertuberous distance is measured by placing the four knuckles of the first of the right hand in the intertuberous space. The number of knuckles accomodated is noted and the distance is measured on the knuckles. It is usually about 10cm.

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EPISIOTOMY:

The posterolateral episiotomy is used in all cases. For anaesthesia local infiltration of the area of episiotomy with 1% lignocaine is used 10ml. of the lignocaine are drawn into a syringe and the skin of the perineum extending from the posterior commissure to a distance of 10cm posterolaterally is infiltrated. Then the subcutenous tissue and muscles are infiltrated and finally the vaginal epithelium in the same line is infiltrated. In toto 10 millilitres are used. In all cases before infiltration aspiration is attempted to exclude entry of the needle into a blood vessel.

The episiotomy is performed when the presenting part is beginning to bulge the perineum. Mayo's pair of scissors is used. The left hand wearing sterile rubber glove is passed into the vagina with dorsum of the hand facing the presenting part to guard it and the palmer surface facing the perineum. The middle and index fingers are held apart to keep the anaesthetised area of the perineum in between.

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One blade of the pair of scissors is passed in between these fingers and the other stays outside. In this way an incision is made posterolaterally starting at the posterior comissure to a distance of 5cm.

Where a pudendal nerve block is used for anaesthesia before episiotomy such as in breech delivery and vacuum extractions, the transvaginal route is used. A long lumber puncture needle is used and the syringe is filled with lignocaine as detailed above. The left hand is passed into the vagina and after identifying the ischial spine the needle is advanced along the hand in the vagina to a point just below and beyond the ischial spine. 10ml of lignocaine are injected to block the pudendal nerve before it enters the Alcocks canal. The procedure is repeated for the opposite side.

REPAIR OF EPISIOTOMY:

During repair of the episiotomy the patient is put on lithotomy position on a delivery bed.

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Repair is done immediately after the third stage of labour which allows the same anaesthesia used for making episiotomy to be used for its repair. The full extent of the wound is explored and repair is done in three layers. First a continuous stitch of 2/0 chromic catgut is used for the vaginal epithelium starting with the apex in the vagina working outwards. Then interrupted catgut sutures number 0. Chromic are used for the muscle layer approximation. The skin is repaired with interrupted Number 0 chromic catgut sutures. A sterile vaginal pad is applied to the vulva.

CATHETERISATION OF THE BLADDER:

Catheterisation is done in both obstetrical and Gynaecological patients. In obstetrics it is done when the patient cannot pass urine, commonly in the late first or second stage of labour. During this time the presenting head may be compressing the urethra and the full bladder rises up into the abdomen. A full bladder discourages uterine contractions. Also in the third stage of labour a full bladder may inhibit uterine contraction and predispose the patient to postpartum haemorrhage.

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Catheterisation in obstetrics is also done prior to operative deliveries such as caesarean section.

In Gynaecology catheterisation is done prior to all pelvic and abdominal operations. The procedure is done in the operating theatre prior to the relevant operation.

PROCEDURE:

The hands are scrubbed with soap water and boiled brush and sterile rubber glove's are worn.

The patient is put on the dorsal position with knees well flexed and thighs abducted thereby exposing the perineum. The vulva is cleaned with savlon 1:20 as described for vaginal examination. With the labiae held wide apart with the index finger and thumb of the left hand the external urethra is cleaned with sterile swab soaked in savlon. The cleaning is done anteroposteriorly. The sterile catheter of suitable size is dipped in chlorhexidine 1% and introduced through the urethra to the bladder. Urine is drained into a kidney dish. Gentle suprapubic pressure is applied to make sure the bladder is empty. For patients going for abdominal operation the catheter is left in situ till after operation otherwise it is removed immediately.

PREOPERATIVE PREPARATION:

(i) Preparation in the Ward:

The patient is examined and declared fit for anaesthesia and surgery. The pulse, temperature and blood pressure are checked. The heart and lungs are examined to exclude any pathology. The haemoglobin is determined and the urine is examined for both sugar and protein. Depending on the type of operation which is to be done and the physical examination findings, special investigations may be done like Serum creatinine and blood urea to assess renal function, intravenous pyelography to chart the course of the ureters or chest x-rey to exclude cardiac enlargement. The patient is starved from 10p.m. in the previous night.

The patients going for abdominal operation have their lower abdomen and pubic area shaved and washed with soap and water. It is then draped with sterile towels. An enema is sometimes given on the evening and morning prior to operation whenever indicated.

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(ii) Preparation in Theatre:

The surgeon scrubs with soap and sterile brush and wears sterile gowns and rubber gloves. Masks and caps are worn. The patient is placed in the appropriate position and the area of the operation is cleaned. For the abdomen Chlorhexidine 0.5% in 70% alcohol is used. The abdomen is cleaned with swabs soaked in the solution first starting with the area of operation and then out wardly to cover the whole abdomen. This is repeated twice. For vaginal operations savlon 1:20 is used to clean the perineum and vagina.

Opening and Closing the Abdomen:

A midline subumbilical incision is used. The incision is made towards the symphisis pubis from about 2.5cm below the umbilicus. Preliminary scratching of the skin transversely is done and four scratches are made to help with the subsequent approximation of the skin during closing. The wound is deepened gently until the rectus sheath is visualised. Bleeding vessels are picked up with small curved artery forceps and tied with plain catgut Number 0. A small incision 1cm long is made on the rectus sheath using a scalpel and then the incision is extended using Mayo's scissors.

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One blade of the scissors is introduced between the fascial tissues and peritoneum and the incision is then extended first upwards then downwards.

The peritoneum is then picked up around the middle of the incision using long straight artery forceps. The assistant picks up the peritoneum at the same level but 1cm away. The surgeon then removes his forceps and reapplies it. This enables omentum and/or bowel to drop away from the peritoneum in case either was included in the original "bite".

The peritoneum is now opened carefully after palpating to make sure that no intra-abdominal structure is near. After it is opened by a small incision air entry causes the bowels to fall back into the peritoneal cavity. The fingers of the left hand are introduced into the abdomen with the palmar surface upper most. The fingers press the abdominal wall upwards away from the intestines. Mayo's scissors are then introduced and the peritoneum divided upwards along the length of the incision making sure the surgeon sees what he is cutting.

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In prolonging the incision downwards great care is taken not to injure the bladder which is recognised by the increasing vascularity and also by the urachus which defines the apex or by the disappearance of the peritoneal translucency.

The abdomen is closed after all swabs have been counted and checked against the original number. The peritoneum is picked up with straight long forceps one of which is applied to each end of the incision and on each lateral side of the peritoneum.

It is then closed with continuous No 0 chromic catgut on a round - bodied needle. The sutures are introduced by picking the inner surfaces of the peritoneum to produce eversion of the peritoneum. This leaves a smooth surface of peritoneum facing the bowels and other viscera and minimises adhesions.

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The anterior sheath of the rectus is now sutured using interrupted No I chromic catgut placed 1cm apart. In obese women the subcutenous tissue is approximated with No 0 plain catgut. Interrupted stitches are used. The skin is approximated with silk number 2/0 on a straight needle. Interrupted stitches are used and are tied just tight enough to ensure aposition of the wound edges. These skin silk stitches are removed on the Seventh postoperative day unless otherwise indicated.

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E. P. H. GESTOSIS

IMMINENT ECLAMPSIA:

VACUUM EXTRACTION WITH INCOMPLETELY DILATED CERVIX :

Name: Mrs. L. J. Age: 20 Years Para 0.

Date of Admission: 16.7.81

Date of Delivery : 16.7.81

Date of Discharge: 18.7.81

SUMMARY:

Mrs. L. J. was admitted to Muhimbili Hospital because of labour pains and mild hypertension. She had no proteinuria or oedema. She was on normal labour record observations when during the late first stage she developed proteinuria, the Blood Pressure rose and she had nausea and visual disturbances. Vaginal examination revealed a cervix 8cm dilated and the head that was only 2/5 above the brim. She was immediately delivered by vacuum extraction. Subsequent to delivery her blood pressure subsided and the proteinuria disappeared within 24 hours. She was discharged in 48 hours.

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Antenatal and Oresent Obstetric History:

She booked at a peripheral dispensary at 28 weeks gestation where she paid four visits. Her last normal menstrual period started on 14.10.80 and since she had a regular 28 days cycle with bleeding which lasted 5 days her expected date of delivery was 21/7/81. She had no antenatal history of vaginal bleeding or discharge. She had no urinary or cardiovascular complains. She was a primigravida.

Examination at the Peripheral Clinic

She was examined at the peripheral clinic where she was found not to be pale, jaundiced and had noankle oedema. Her blood pressure was 110/70 mm mercury in all four visits and her haemoglobin was 11.7g/dl. Her urine contained neither sugar nor albumin and urine culture revealed no organisms. She weighed 62kg. at 28 weeks gestation and by 36 weeks she weighed 66kg.

She was admitted with labour pains at Ocean Road Hospital where her blood pressure was found to be 130/90mm mercury and so she was referred to the Muhimbili High risk labour ward for delivery.

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Admission at Muhimbili on 16.7.81 - 10am.

She was seen at Muhimbili labour ward where her gestation was noted to be 39 weeks. Her obstetric history was as noted above.

Gynaecological history:

She had menarche at 15 years followed by regular menstrual cycles every 28 days lasting five days. There was no history of vaginal discharge or acute lower abdominal pain . There was no history of taking contraceptives.

Medical and Surgical History:

There was nothing abnormal.

Social and Family History:

She neither smoked nor drank alcohol. She was housewife married to a peasant.

Examination at Muhimbili.

The patients condition was good. She was not pale but had moderate labour pains. Her height was 150cm and she weighed 67kg. She had a pulse rate of 80/minute of normal volume and regular. Her blood pressure was confirmed to be 130/90mm mercury. The femoral pulses were felt and were Syncronous.

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Abdominal Examination:

The abdomen wa uniformly elarged. There were no areas of tenderness. The liver and spleen were not palpable and the kidney areas were normal. The fundal height was 38 weeks of gestation, the presentation was cephalic and foetal hearts were heard with a regular rate of 144/minute.

Vaginal Examination:

A vaginal examination was done as detailed in the introduction. The head was 2/5 above the brim and the cervix was 5cm dilated, fully effaced and soft. The membranes were raptured and no meconium was seen, there was no cord prolapse and the head was in the left occiput anterior position. There was no caput or moulding.

Labour Progress:

The patients blood pressure and pulse was recorded ½ hourly. The foetal heart rate and uterine contractions were observed ½ hourly. The contractions were strong occuring every 3 minutes and lasting 45 seconds. The patient was given diazepam 20mg intramuscularly because of the Blood pressure.

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Three hours later the patient complained of severe frontal headache, dizziness, nausea and visual disturbances. Her Blood Pressure rose to 160/100mm mercury and her urine showed proteinuria + ++. She looked puffy.

A diagnosis of imminent eclampsia was made she was given an intravenous dose of diazepam 20mg and she was examine vaginally. The cervix was only 8cm dilated well applied to the head which was 1/5 above the brim. A decision to deliver her by vacuum extraction was made.

Delivery:

The patient was transfered to the delivery bed and placed on lithotomy position. The eccoucheur scrubbed and wore sterile rubber gloves, gown and a mask. The perineum was cleaned with salvon 1:20 and draped with sterile towels. The bladder was catheterised as explained in the introduction. A puderdal nerve block was done using 1% lignocaine. 5ml of lignocaine were infiltrated on each side as detailed in the introduction. A left posterolateral episiotomy was done.

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Vacuum Extraction:

The rubber tubes and cups of the Malmstroms vacuum extractor had been sterilised. They were fitted and checked. No leakage was detected. Cup number 5 was fitted and applied to the babies head as close to the occiput as possible and plenty of Hibitane cream was used to smear to the cup and in the vagina. The cervix and vagina were checked to make sure they were not included in the cup.

A negative pressure was created in the system using manual pump and 0.2kg./sq.cm was created every two minutes until 0.7kg/sq.cm was reached. A check for maternal tissue inclusion was made again. Traction was applied during uterine contractions but the mother was not encouraged to push because she was drowsy due to diazepam and for fear of precipitating eclampsia. Traction was applied in the axis of the pelvis first than upwards as the head engaged and crowned. Three tractions were necessary. The pressure was released as the baby's head came out. The cup was removed and delivery completed normally. The process took 12 minutes.

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The third stage was completely normal. It was accomplished without ergometrine for fear of aggravating the hypertension. The episiotomy was repaired using chromic catgut number 0. There were no cervical or vaginal tears. The baby weighed 2.8kg. was male and was born with apgar score 10 at 1 minute.

Pueperum and follow up:

The Blood pressure post delivery was 150/90mm mercury and the pulse rate was 80/minute. The urine still contained protein ++. She was put on close observation of pulse rate, Blood pressure and for any convulsions. The headache subsided and she did not develope any convulsions. Her blood pressure two hours later was 140/90 mm mercury and her urine contained only trace protein. Her urine output six hours later was 450ml. and contained no proteins. She was drowsly and the dose of valium was reduced to 10mg. six hourly orally. 12 hours post operative her blood pressure was 120/80 mm mecury the urine contained no protein and urinary output was 1000ml. Her pulse was 76/minute and she had no proteinuria.

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The sedation was stopped but we continued Blood pressure and pulse monitoring for 48hours. The blood pressure stabilised at 120/70mm mercury and the urine contained no protein. She was discharged with an appointment to the postnatal clinic 2 weeks later.

She was seen in the postnatal clinic after two weeks. Her blood pressure was 120/70mm mercury and her urine contained no protein. She was lactating normally. Her baby was well and had no caput or haematoma on the head. She was seen again at the postnatal clinic six weeks later for check up and family planning advice. She subsequently had an intrauterine contraceptive device inserted.

Comments:

The aims of treatment of E.P.H. gestoses are to minimise hazards to both the mother and the foetus until such time as the foetus stands a better chance of survival outside the uterus than in.

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The onset of symptoms which include headache and photophobia, epigastric pain nausea and vomiting is ominous and if neglected eclampsia and coma may supervene (1). Early and effective treatment is imperative when the above symptoms of imminent eclampsia occur because the Wellbeing of the mother becomes the dominant factor. (1) In this patient who was at term and in labour salvage of both the mother and the foetus was possible through delivery by the most convenient method. Vaginal delivery, as in this case, in the absence of any clear cut obstetric contra-indications is recommended for the termination of pregnancy in severe E.P.H. Gestosis (2) although others (3) advocate prompt termination of pregnancy by the most expeditious means in the stable patient rather than risk continuous pharmacological insult to both the patient and foetus.
In this case assisted vaginal delivery was preferred because of the almost fully dilated cervix and engaged head. Preparation for any other mode of delivery would have taken much longer time.

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Energetic management of severe E.P.H. gestosis is said to reduce the incidence of eclampsia (4) and eclampsia can be anticipated and prevented (5). In this case Diazepan was used to sedate the patient heavily and prevent convulsions. Diazepam has a wide safety margin is a sedative and anticonvulsant. (1) It acts by depressing the medullary centres. (4) Large doses of diazepam have been shown to affect the newborn adversely (6). Where the blood pressure continues to rise the reduction of the hypertension may be achieved by Hydrallazine which acts rapidly predictably and has a wide safety margin (4). It increases cardiac output and renal and cerebral blood flow and decreases blood pressure by decreasing peripheral resistance. Diazoxide may also be used effectively but a dose higher than 600mg may induce hyperglycemia in the newborn (4). In this patient the blood pressure gradually normalised and there were no reasons for antihypertensives.

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In a deeply sedated patient with incompletely dilated cervix, the vacuum extractor is the best aid to hasten vaginal delivery. It has been said to have an advantage over the forceps and several workers (8) (9) have used it in the incompletely dilated cervix with overwhelming successes. But others have reported some troubles from vacuum ranging from failure due to unsuspected disproportion to intracranial injury and death. Notwithstanding this it is the writers opinion that vacuum extraction can be life saving when the cervix is more than 6cm dilated and the head is engaged. This case is a vivid example.

REFERENCES:

1) Hibbard B. M. Rosen M: Management of severe pre-eclampsia and Eclampsia Br. J. Anaesth. 49, 3, 1977.

2) Helman L. M. Pritchard J. A. Williams Obstetric 14th Ed. New York Appleton Century Crofts 1971 Pg. 685 .

..../34.

3) Morris J.A., Arce J. J. Hamilton C. J. Davidson E.C. Madman J.E. Clark J. H. and Bloom R. S.: The management of severe Pre-eclampsia and eclampsia with Diazoxide. Obst. Gynaecology 49: 675, 1977.

4) Lawson J: Current views on the management of eclmapsia Clinical Obstet Gynaecology 4, 707, 1977.

5) Zuspan F. P. Treatment of severe pre-eclmapsia and Eclmapsia Clinical Obstet. Gynaecol. 9: 954, 1966.

6) Gree J.E. Meyer J. Hailey D. M. Diazepam in labour Brit. Medical J. IV, 251, 1973.

7) Lawson J. B.: Obstructed labour. Obstetrics and Gynaecology in the tropics Edward Anorlds Ltd. London.

8) Chalmers J.A. and Prakash A: Vacuum extraction during first stage of labour; J. Obstet Gynaec. Brit. Commwlth 78, 554, 1971.

9) Willcocks: J. Obstet Gynaecol Brit. Commwlth 69: 266, 1962.

10) Huntinglon
Lancet 2, 662, 1961.

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ANTEPARTUM HAEMORRHAGE:

EXAMINATION UNDER ANAESTHESIA:

ARTIFICIAL RAPTURE OF MEMBRANE:

Name: Mrs. M. J. Age 26

Address: Kariakoo

Date of Admission: 13/6/81

Date of Delivery: 13/6/81

Date of Discharge: 16/6/81

SUMMARY:

Mrs. M. J. was admitted to Muhimbili labour ward from Ocean Road hospital because she developed vaginal bleeding while in labour. She had booked at a peripheral clinic where she attended all the time. She paid seven visits to the clinic and there were no problems noted. Her haemoglobin was 13g/dl and the blood pressure remained 110/60mm mercury all the time. She did not develop proteinuria.

She was admitted in labour at 36 weeks gestation at Ocean Road Hospital. She was found to have vaginal bleeding and was referred to Muhimbili high risk labour ward. She had no abdominal pain. The foetal heart rate was normal and foetal parts were felt. No vaginal examination was done.

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An examination under anaesthesia was done. The cervix was 3cm dilated and the head was 4/5 above the brim. The membranes were bulging. Artificial rapture of Membrane was done. The Placenta was found to be located 2cm above the internal os anteriorly. She delivered a 2.8kg. male baby six hours later with a five minute apgar score of 10. There was no post partum haemorrhage.

Antenatal Care and Present Obstetric History:

The patient booked at 20 weeks gestation and paid seven visits to the clinic. Her haemoglobin was 13g/dl and the blood pressure was 110/60mm mercury. She had no complications noted during her visits. She did not have history of bleeding during this pregnancy. She was booked to deliver at the Ocean Road Hospital because she did not have a risk factor. Her last normal menstrual period started on 20/9/80 and her expected date of delivery was 27/6/81.

Past Obstetric History:

She was para one, a 1978 normal pregnancy and spontenous vertex delivery. There was no antepartum or postpartum haemorrhage.

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Gynaecological History:

She had menarche at 14 years old and it was followed by regular menstrual periods every 28 days with normal bleeding lasting 3 - 4 days. There was no intermenstrual bleeding and no history of vaginal discharge. She had not used contraceptives.

Past Medical and Surgical History:

There was nothing significant.

Family and Social History:

She was married to a factory supervisor. She did not smoke cigarettes or drink alcohol.

Examination on Admission:

Her general condition was fair. She was pale but not dyspnoeic. She had no peripheral oedema. Her blood pressure was 90/60mm mercury and had a pulse rate of 100/minute poor volume but regular. She had cold extremities. She was afebrile.

Cardiovascular and Respiratory Systems:

The Cardiac sounds and size were normal. There were no murmurs. The lungs were normal.

Abdominal Examination:

The abdomen was uniformly enlarged. Superficial palpation revealed no tenderness. The spleen and liver were not palpable. The renal angles were not tender.

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The fundal height was 38 weeks of gestation. The foetus was palpated. It was longitudinal lie and Cephalic presentation. There was 4/5 of the head above the pelvic brim the foetal heart rate was 144/minute regular. She was having strong uterine contraction every five minutes and lasting thirty seconds.

Examination under Anaesthesia:

PREPARATION:

The patients blood was grouped and crossmatched four units and an intravenous drip of 5% Dextrose was set up and ran fast to maintain blood pressure. She was prepared for both abdominal and perineal operation as detailed in the introduction. She was sent to the theatre on a stretcher in the left lateral position. The surgeon scrubbed with soap and water and wore sterile gown, gloves and mask. An assistant and an instrument nurse scrubbed and dressed in a similar manner ready for operation. Instruments for both examination under anaesthesia and Caesarean section were put ready on two separate trays.

Anaesthesia:

The patient was induced with Ketamine anaesthesia and intubated with cuffed endotracheal tube. She was maintained on Nitrous oxide/oxygen 50:50 mixture. The anaesthesia was smooth.

Examination:

The perineum and abdomen were prepared as for perineal and abdominal operations respectively and drapped with sterile gowns (see introduction for details.) The bladder was catheterised as detailed in the introduction.

A vaginal examination was gently done. The one hand in the vagina palpated all the fornices while the outside hand pressed the foetal head into the brim to look for any intervening thickness in the lower segment between the fingers in the vagina and the head. A suspicious thickness was felt on the anterior fornix. The index finger was then advanced through the os which was found to be 3cm dilated and membranes bulging. The membranes were then raptured by advancing a korchers forceps through the vagina along the index finger to the membrane. The membranes were then pinched with the forceps and raptured. No meconium was seen. The index finger was advanced through the cervix to palpate the lower segment. A soft mass was felt on the anterior part of the lower segment about 2cm above the internal os. This was judged to be the placenta. Some bleeding was oozing from this area,. A diagnosis of 1st degree Placenta previa was made and labour was allowed to continue.

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She was returned to the labour ward and was on close observation of bleeding. Pulse and blood pressure. She received two units of Blood Group O Rh positive.

Delivery and Discharge (see introduction).

She delivered a 2.8kilogram male baby with a one minute apgar score of 10. The second stage of labour lasted 30 minutes. The third stage was managed actively with ergometrine intravenously at the delivery of the anterior shoulder and the placenta was delivered by controlled cord traction after the first contraction was felt postdelivery. It lasted 15 minutes. There was no postpartum haemorrhage. She was discharge after 48 hours with a haemoglobin of 12g/dl and on oral iron and folic acid. She got nutrition advice and an appointment for the postnatal clinic six weeks later. She was seen in the postnatal clinic in good health and was given family planning advice. Her hemoglobin was 13.2g/dl.

COMMENTS:

Antepartum haemorrhage is an obstetric emergency which either the mother or the baby or both may have their life threatened. The bleeding which occurs after 28 weeks of gestation may be caused by separation of a placenta situated in the lower uterine segment (placenta Previa) or one situated in the upper segment as is normal (abruptio Placenta).

It may occasionally be of foetal origin as in vasaprevia or it may come from other sites like the cervix or vagina.

Though there are typical descriptions of the major causes of antepartum haemorrhage it is often difficult to categorise a case as either placenta Previa or abruptio placenta (1) (2). Definitive diagnosis depends on vaginal examination which, for fear of provoking a massive bleeding, must be done under anaesthesia in theatre with everybody and everything ready for caesarean section. This case being at term in labour was handled as such. There was no indication to try any other methods of diagnosis as these would take longer time and the patient could lose more blood.

Other methods of localising the placenta include soft-tissue radiography, isotopic scanning and retrograde fermoral arteriography. They all involve using radiation whose effect on the baby are undesirable. Ultrasound placenta localisation may be tried from early pregnancy, is safe to both foetus and mother and is accurate (2), but the facilities are not yet universally available.

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When the patient presents with antepartum haemorrhage prior to 37th week of gestation the management is expectant unless the life of the mother or the foetus is threatened. It has been shown that expectant management of placenta previa was justifiable and led to a reduced premature delivery (3) (1). It is however agreed (5) that if the original haemorrhage is severe or the gestation is around term or if there is recurrent bleeding (1), temporizing is dangerous and delivery should be proceeded forthwith. Assessment of foetal lung maturity may be done rapidly using the shake test (6) and delivery effected.

The purpose of examination under anaesthesia is first to make diagnosis where one is not made yet and secondly to decide on the mode of delivery. If one finds a central placenta previa vaginal delivery is clearly not possible but if one finds a type one placenta previa situated anteriorly with a ripe dilated cervix then vaginal delivery is possible. This was the case here and delivery was effected. Where bleeding becomes profuse and life-threatening, caesarean section without an examination under anaesthesia is advocated (1). Close monitoring of these patients is therefore very important.

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REFERENCES:

1) J. Chassar Moir and P. R. Myerscough Placenta Previa: MunroKerr Operative Obstetrics 8th Ed. 1971 Balliere - Tindall and Cassell London.

2) I. Donald: Placenta Previa Practical Obstetrics Problems 5th Ed. Lloyd - Luke Ltd., London.

3) Johnson H. A: Conservative management of some varieties of placenta Previa Am. J. Obstet. Gynaec. 50: 248, 1945.

4) Mac Afee CHG, Miller W. G. Harley G. Maternal and Foetal mortality in Placenta Previa J. Obstet. Gynaec. Brit. Cwlth 69: 203, 1962.

5) W. B. Saunders Co; Controversy in Obstetrics/ Gynaecology The Vatues and dangers of Conservative management. in Placenta Previa. Ed. by Duncan E. Reia & C. D. Christian.

6) Clements J. A., Patsker Acg, Tierney DF., Hobel C. J. Creasy R. K., Margolis A.J., Thibeault D. H., Tooley WH and Oliv., Assessment of the risk of R. D. S. by a rapid test for surfactant. New Eng. J. Med. 286: 1077, 1972.

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BREECH PRESENTATION:

FAILED EXTERNAL CEPHALIC VERSION ASSISTED BREECH DELIVERY:

Mrs. P. I. Age: 28 years AN/No. 38810/81

Address: - Kariakoo

Date of Admission 8.7.81

Date of Delivery 8.7.81

Date of Discharge 10.7.81

SUMMARY:

Mrs. P. I. was booked to deliver at Muhimbili Medical Centre because she had been diagnosed as having a breech presentation during the antenatal period. An external cephalic version had been attempted at 34 weeks but had failed. She was therefore booked to deliver at the high risk unit at Muhimbili Medical Centre.

She was admitted at term in late first stage of labour. She had assisted breech delivery of a 2.6kg. male baby with Apgar score 10 at one minute.

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Antenatal and Present Obstetric History:

The patient booked at 30 weeks in Amtulabai Clinic. Her last normal menstrual period started on 30.10.80. She had a 28 days cycle with bleeding which lasted 4 days so her expected date of delivery was 10.7.81. She did not remember when she first felt foetal movements. There was no history of bleeding or vaginal discharge during pregnancy. She made three visits at the peripheral clinic where no abnormality was noted except in the last visit when she was noted to have a breech presentation. She was therefore referred to the Muhimbili High risk clinic.

She made four visits at the Muhimbili high risk clinic. In the first visit at 34 weeks an external cephalic version was attempted but failed due to difficulties in disimpacting the breech which was engaged in the pelvis. She was therefore booked to be delivered as a breech at term. At 34 weeks gestation a pelvic examination was done as detailed in the introduction. The clinical pelvic assessment indicated that the baby could pass through the pelvis without difficulties of disproportion. The baby was estimated at 2.5kg and she was instructed to come for admission at the start of labour pains.

PREVIOUS OBSTETRICS HISTORY:

ORDER	PLACE OF DEL.	YEAR OF DEL.	MODE OF DEL.	GESTATION AT DEL.	BABY COND	SEX	WT	PUEI
1	Ocean Road Hospital	1971	SUD	36/40	Good	F	Un-known	Uncomp licate
2.	Ocean Road	1973	SUD	Term	Good	M	Un-known	Satis-factor
3.	M.M.C.	1977	SUD Induction	Post-term 42 weeks	Godd	M	3kg	Satis factor
4.	M..M.C.	1979	SVD	Term	Good	M	3.5kg	Satis-factor
C U R R E N T P R E G N A N C Y								

SVD = Spontenous vertex delivery

MMC = Muhimbili Medical Centre.

Gynaecological History:

Her menarche was at 14 years of age followed by regular cycles of 28 days with bleeding which lasted 4 days of normal flow. There was no history of irregular or painful menstruation.

Medical and Surgical History:

There was nothing relevant.

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Social and Family History:

She was married. She did not smoke or drink alcohol. Her husband was a clerk.

Physical Examination on admission:

The patient was admitted at 40 weeks gestation in good condition. She was not pale had no oedema and was afebrile. She was not dehydrated and looked well nourished. Her blood Pressure was 100/70mm mercury and the pulse was 80/minute regular of good volume. The cardiovascular and respiratory systems were normal. The breasts were normal with well developed nipples.

Abdominal Examination:

The abdomen was uniformly enlarged. With marked linea nigra. There was no area of tenderness. The spleen and liver were not palpable.

The fundus was estimated to be 38 weeks, the lie was longitudinal and the lower pole was deep in the pelvis. A hard pole was palpated at the fundus close to the midline but more to the right and this was suspected to be the head. The foetal heart was heard at the right side above, the umbilicus. It was 140/minute regular. The baby was estimated to be moderate size between 2.5 - 3kg.

Vaginal Examination:

A vaginal examination was done as detailed in the introduction. The vulva and vagina were normal. There was liquor amni oozing from the introitus. No meconium was noted. The cervix was 7cm dilated. It was thin soft and well applied to the presenting breech. The breech was presenting with a left sacral anterior position. It was a complete breech. No cord was palpated. A diagnosis of breech presentation was confirmed and labour was allowed to continue. She was put on a delivery bed and asked to lie on her left side. She was to be examined again in three hours time.

Delivery: (See introduction for details)

Three hours later the patient was found to be ready for delivery. The cervix could not be palpated and the breech was distending the perineum. The accoucher scrubbed with brush and soap and wore rubber gloves. No gowns or masks were worn. The patient was put on a full dorsal position and the perineum was cleaned with salvon. Sterile gowns were used to cover the patient. Plenty of antiseptic cream, Chlorhexidine 1% was used to the gloved hand and vagina while delivery was conducted. An episiotomy was done as detailed in the introduction.

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The breech delivered spontenously to the umbilicus. At this stage a loop of cord was pulled out. Holding the pelvis and femur traction was exerted gently. When the shoulder blades were seen the arms were ready for delivery. The accoucheurs right hand was passed into the vagina and sweeping across the chest of the foetus hooked out the right arm of the baby. The baby was then rotated through 180° and the posterior underlivered arm became anterior. It was then delivered similarly.

After the arms had been delivered the baby was left to hang from the pelvis for one minute. It descended and the hair line was seen. Now while standing with the accoucher's back to the patient's left leg the babys legs were grasped by the right hand and with a firm outward force the child was drawn over the maternal pubis. The foetal head was delivered by a movement of flexion as described by Burns.

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The perineum was supported by the left hand and as the nose and mouth became free the assistant started suction. The head was delivered slowly. The second stage lasted 45 minutes. A baby of apgar 10 at 1 minute was delivered with weight 2.6kg. The third stage was managed actively using intravenous ergometrine 0.25mg given after the birth of the head. The episiotomy was repaired as detailed in the introduction. The third stage lasted 10 minutes.

She was in hospital for 48 hours after which she was discharged in good condition. She was seen a week later when her episiotomy was found to be healed. She was given an appointment to the postnatal clinic six weeks later for general review and family planning advice.

COMMENTS:

The delivery of a breech presentation presents special mortality problems. P. Tompkins (1) states that there is an intrisic mortality of Breech delivery of 2.7% when all maternal and foetal complications are excluded.

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This risk is 2 - 3 times that of a vertex delivery. In our environment where facilities for neonatal resuscitation are far from optimal the mortality and morbidity must be high. About 10% of all still-births are born by breech delivery (2). This compared to a rate of 4.9% breech delivery for all delivery represents a high incidence which must be contributing to our increased Perinatal mortality.

There is strong evidence to support the contention that all breech delivery at term should be by caesarean section. Joseph V. Collae (3) et al in a prospective study on the management of 208 Breech deliveries was only able to deliver 28.8% by vaginal delivery. In fact only 60 of 112 allocated for vaginal delivery could be delivered so. He however maintained that caesarean section has a mortality and morbidity and should be reserved for only those who need it as the only possible method.

Stewart Taylor (4) in his comments about the same study says that since even after x-ray Pelvimetry and careful Biparietal cephelometry the intrinsic factor of Breech delivery is not lowered, Caesarean section is the method of choice for all Breech deliveries.

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He notes the many complications associated with B Breech delivery and wonders whether there is a place for vaginal delivery in breech presentations.

It is the writers opinion that Caesarean section is a major operation with anaesthetic and operative risks which should not be subjected to any patient who could do without it. In our environment where caesarean section and associated causes are the second major cause of maternal mortality (5) and where we cannot be sure of the circumstances which will surround the next pregnancy and delivery, caesarean section is not a light undertaking. The write is also aware that the best method to deliver the after-coming head of a breech presentation is by forceps delivery. These were not employed due to lack of experience and so the Burns-Marshall method was used. Otherwise it is felt that the clinical methods used to exclude cephalopelvic disproportion, the conduct of delivery and the final outcome of the baby were satisfactory in this case.

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REFERENCES:

1) P. Tompkins Am. J. Obstet. & Gynaecol. 46, 965: 1943.

2) Annual Report 1979/80 Depart. Obs/Gynaecology Muhimbili Medical Centre Dar Es Salaam.

3) Joseph V. Collae, Connie Chain, Edward J., Quilligan Am. J. Obst./Gynaecol. 137,235-1980

4) Stewart Taylor; Survey 36 (1), 21:1981.

5) Mtimavalye L. A. R.: Proceddings of the Scientific Conference of Ass. of Gynaecologists and Obstetricians of Tanzania 1979.

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CEPHALOPELVIC DISPROPORTION:

LOWER SEGMENT CAESAREAN SECTION:

Name: Mrs. Boko Age 18 IP. NO. 4814

Address: Kariakoo

Date of Admission 4/8/81

Date of Delivery 6/8/81

Date of Discharge 15/8/81

SUMMARY:

Mrs. E. K. was admitted to Muhimbili labour ward because of a diagnosed severe cephalo-pelvic disproportion. She had been seen in a Peripheral clinic during antenatal period and was referred to the Muhimbili high risk clinic because she was a short primigravida. She was subsequently booked for delivery in the Muhimbili intensive care labour ward because of a diagnosed pelvic contraction. She had an elective lower segment Caesarean Section at term and a 3.4kg female baby was delivered. The post operative period was unventful.

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PRESENT OBSTETRIC HISTORY AND ANTENATAL CARE:

The patient booked at 16 weeks in a peripheral clinic and was refered immediately to Muhimbili high risk clinic because she was a short primigravida. She was 140cm tall. She paid six visits to the clinic where no problems were noted except that she was a short primigravida. Her haemoglobin was 12g/dl and Blood Pressure was 110/mm mercury.

At 36 weeks gestation a clinical pelvic examination was done as described in the introduction. The clinical pelvimetry showed that "the diagonal conjugate was about 9.5cm. The sacral concavity was found to be flat and the ischial spines were prominent. The subpubic angle was estimated at 85° and the intertuberous distance was 10cm. The pelvis was judged to be contracted and the patient was instructed to come for delivery at 38 weeks or earlier if labour started.

PAST OBSTETRIC HISTORY:

She was a Primigravida.

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GYNAECOLOGICAL HISTORY:

She had menarche at 14 years followed by normal regular cycles of 28 days with bleeding which lasted 3 - 4 days. Her last normal menstrual period started on 6/12/80 and so her expected date of delivery was 3/8/81.

FAMILY AND SOCIAL HISTORY:

She was born in a poor peasant family with the main staple food of starch. She never went to school and was now married to a middle-class factory administrator. Their diet was now rich in protein and carbohydrates. There was no family history of tuberculosis, Diabetes mellitus or twins. She did not drink alcohol or smoke cigarettes.

EXAMINATION ON ADMISSION:

She was admitted at 39 weeks for delivery as advised. She was short and slender. She was not pale, had slight ankle oedema and did not show obvious deformities of spine or hips.

CARDIOVASCULAR AND RESPIRATORY SYSTEM:

There was no abnormality.

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ABDOMINAL EXAMINATION:

There were no surgical scars. The uterus was 38 weeks pregnant. The foetus was lying longitudinally with cephalic presentation. The attitude was of good flexion but the head was felt to be big. The foetal heart was 140/minute regular. The head was not engaged and could not be made to engage. The foetus was estimated to be 3.8kg.

There were no palpable abnormal masses. The liver spleen and kidneys were not palpable.

VAGINAL EXAMINATION:

Vaginal examination showed a thin soft completely effaced cervix which was closed. Clinical pelvic assessment confirmed the antenatal findings and so an attempt to engage the head was made by using the Muller-Kerr method.

The patient was put in the dorsal position and the examiner stood on her side facing her. The left hand grasped the head and pressed it into the brim of the pelvis. Two fingers of the right hand were passed into the vagina to determine the consistence and manner of engagement of the head while the thumb externally was passed infront of the pubic bones to estimate the position of the head with respect to the pubic bones.

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The fingers in the vagina tried to feel the level of the head. A second degree overlap was found.

With the findings of a contracted pelvis and a big baby in a primigravida there was an absolute indication for elective caesarean section. The patient was then prepared for operation.

PRE-OPERATIVE PREPARATION:

1) Blood Grouping and Crossmatch was done for two units. The haemoglobin was 12g/dl.
2) The consent for operation was obtained from the patient and the abdomen and perineum shaved and cleaned with salvon 1:20.
3) She was starved overnight and a Urinary catheter was inserted just before going to the theatre under a septic technique as detailed in the introduction.
4) She was transfered to the theatre lying on her left lateral position.

ANAESTHESIA:

The patient was given 0.6mg atropine intravenously and induced with thiopental sodium 250mg intravenously. She was given suxamethonium 40mg intravenously as muscle relaxant and a cuffed endotracheal tube was used for intubation.

She was maintained on Nitrons oxide: oxygen 50:50 Ether was used. Mechanical ventillation was used and the pulse and blood pressure were monitored ½ hourly. The anaesthesia was smooth.

OPERATIVE PROCEDURE: LOWER SEGMENT CAESAREAN SECTION:

The abdomen was prepared as detailed in the introduction. Aright paramedian lower abdominal incision was made. The abdomen was opened as detailed in the introduction.

Both lateral and fundal sides of the uterus were packed with large gauze packs which had been soaked in warm saline. The tailed ends of these gauze packs were fixed to the outside using artery forceps.

The gauze packs were to keep intestines away and to prevent any spill of liquor to the peritoneum.

The lower segment peritoneum was picked and snipped with scissors then divided transversely well to both sides. Blunt dissection with fingers was used to push the peritoneum down. The incised bladder peritoneum was lifted by artery forceps and gently using the index finger the dissection was extended downwards. Care was taken to avoid injury to the vessels in the utero-vesicle space.

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Similarly the peritoneum left on the upper side was dissected for about 2cm upwards. A Doyen's retractor was used to keep the bladder away.

Using a knife a 1cm long transverse incision was made on the lower segment and carefully deepened till membranes were bulging. Then both index fingers were used to extend the incision laterally. The membranes were ruptured.

DELIVERY:

The right hand was passed into the uterus and below the presenting head. With the aid of gentle fundal pressure by the assistant the head was hooked out. The baby's face was immediately swabed with sterile gauze and its breathing movements began. The baby was then delivered by pulling downwards to deliver the anterior shoulder and then upwards to deliver the posterior shoulder. The cord was clamped with two strong artery forceps and divided in between using Mayo's scissors. It was handed over to the midwife.

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Ergometrine 0.25mg was given intravenously with the birth of anterior shoulder. Green armytage clamps were used to arrest haemorrhage where and the lateral corners of the uterine incision were particularly secured. The placenta was then delivered by controlled cord traction and particular care was taken to strip all the membranes off the uterine cavity. A dilator was passed through the cervix via uterine incision to ensure drainage.

CLOSING THE UTERUS:

The uterus was repaired in two layers using No. 2 chromic catgut on a half circle round bodied needle. In the first layer care was taken to avoid the uterine decidual. In the second layer De Lees fascia was used to cover the first layer. The first layer was a continous suture while the second one was an interrupted suture.

The wound was then covered by bladder peritoneum using No. 0 chromic catgut on a half circle round bodied needle. The blood loss was estimated to be 400ml. Both tubes and ovaries were inspected and found to be normal.

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The swab count was pronounced complete after abdominal packs had been removed. The abdomen was closed as described in the introduction. The uterus was squeezed to expel clots from the uterus and the vagina was cleaned with sterile swabs. The uterus was well contracted and so the abdominal wound was dressed and anaesthesia discontinued. The patient was sent to the recovery room.

POST OPERATIVE TREATMENT:

1) Blood Pressure and pulse were monitored ½ hourly for 6 hours then hourly for 24 hours.
2) Pethidine was given 100mg as required for analgesia.
3) Dextrose 5% was given 2.5 litres in 24 hours
4) Temperature was monitored 4 hourly for 5 days
5) She received 2 units of blood transfusion on the second post operative day.
6) The urinary catheter was removed after 24 hours and she had passed 2000ml. of urine.

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POST OPERATIVELY:

She did not develop a temperature she passed flatus after 24 hours when the drip was also discontinued. She started oral fluids after 36 hours and walked to the toilet then. The stitches were removed after 8 days when the wound was found to be clean and healed. The uterus was 14 weeks size of pregnancy and there was minimal uninfected lochia. She was discharged and given an appointment to the postnatal clinic six weeks later.

She was seen in the postnatal clinic. The wound was not tender and had healed. The pelvic organs were normal. She was advised on family planning and was subsequently started on oral contraceptives.

COMMENTS:

One of the main, functions of antenatal clinic is the selection of 'high risk'mothers so that an appropriate management may be instituted to achieve successful outcome of pregnancy. In this way complications of uncorrected abnormalities and malpositions are not encountered in labour.

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Severe cephalopelvic dispropotion is an absolute indication for abdominal delivery and therefore early detection and plan of treatment is essential. It has been shown (1) that cephalopelvic disproportion is a leading cause of caesarean section and the commonest cause of obstructed labour (2). There is increasing incidence of cephalopelvic disproportion with increasing birth weight (4) as the standards of nutrition improve.

There is therefore a need to intensify antenatal care so that these cases are sorted out early and planned treatment given. This case shows what antenatal care should do in terms of sorting out the high risk pregnant patients and planning their treatment. In cases of severe disproportion the treatment of choice is elective caesarean section. Infact there is no reasonable alternative (5). It is only in mild and doubtful cases where trial of labour is allowed and this must be done in a hospital where facilities and expertise for caesarean section are available at short notice.

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Induction of premature labour as a treatment for cephalopelvic disproportion has been practiced in the past but with the advent of safe caesarean section it is no longer practiced. When a patient arives with the head of foetus deeply engaged and outlet disproportion is diagnosed symphysiotomy may help to increase the outlet transverse diameter (6). Otherwise if the patient has a dead foetus with a deeply engaged head a fully dilated cervix, craniotomy is the operation of choice. In these cases where labour is already obstructed there is danger of damage to maternal pelvic tissues. It reflects a failure of obstetric care and should not occur. With increasing rate of cephalopelvic disproportion we expect a rise in the rate of caesarean section or else we shall face a rising rate of obstructed labour.

Clinical Pelvimetry is vital in excluding disproportion and where doubt exist x-ray may be used to obtain more detailed and accurate information (5). In these cases an erect-lateral film will enable one to measure accurately the inlet dimenstions (mainly the Obstetric conjugate) and the outlet dimensions.

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The pelvic angle of inclination and the shape of sacral curve may be assessed in this way a possibility of cephalopelvic disproportion may be excluded or anticipated. In this patient there was no need for x-ray diagnosis because the clinical assessment was fairly conclusive and the treatment given was therefore appropriate.

REFERENCE:

1) J. B. Lawson' Obstructed Labour
J. Obstet. Gynaec. Brit. Comwth 72: 877, 1965.

2) M. Mphehlele and A. J. Van der Merwe
Obstructed Labour at the University Teaching Hospital Lusaka - Zambia April 1972 - Dec.1973
South Afr. Med. J. 49, 1204, 1975

3) L.A. R. Mtimavalye, C.D. Van de Does and J.B. Maathuis The relationship between increasing birth weight and cephalopelvic disproportion in Dar Es Salaam Tanzania.
J. Obstet. Gynaec. Brit. Comwth 81, 380 1974.

4) Ebrahim G.J. (1969) The Newborn in Tropical Africa. East Africa Lt. Bureau
Dar Es Salaam Tanzania.

5) Donald I (1969). Practical Obstetrics Problems
Lloyd-Luke Ltd. London.

6) Seedek E.K. and Crichton D (1962):Symphisiotomy Techniques, Indications and Limitations Lancet 555

RECURRENT ABORTION:

INCOMPETENT CERVIX:

CERVICAL CIRCLAGE:

Name: Mrs. A. W. Para 1 Age 27

Address: Bagamoyo

Date of Admission 7.7.81

Date of Operation 18.7.81

Date of Discharge: 25.7.81

SUMMARY:

Mrs. A. W. was admitted to the Muhimbili high risk antenatal ward because she had a history of three conservative midtrimester abortions. She was para one and had a cervical dilatation and uterine curretage after her first pregnancy du to irregular uterine bleeding. There had been no fever or bleeding preceeding the abortions. The patient had noted that she first would leak liquor and labour would start within twenty four hours. All the abortuses were of live immature babies which lived for a few hours.

She was diagnosed as having a cervical incompetence and had cervical circlage done. She delivered a live normal female baby with Apgar Score 10 at 5 minutes and weighing 3.5kg. at 39 weeks gestation. The Stitch had been removed at 38 weeks. There was no post partum haemorrhage.

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Antenatal Care and Present Obstetric History:

The patient book at the Muhimbili Medical Centre high risk clinic at 12 weeks gestation because she had been adviced by her doctor to do so due to her recurrent abortions the cause of which was not known. She said that in all her last three pregnancies she spontenously leaked liquor and within one day she developed labour pains and delivered a live foetus which survived a few hours only. She did not note any abnormal physical appearance in the babies. She denied history of fevers or trauma prior to the abortions. She had no history of postpartum haemorrhage in her first pregnancy and denied history of any vaginal operation on her. She had no instrumental manipulations to deliver her first baby and her labour lasted only 12 hours. Her baby weighed 2.5kg. and cried immediately after birth.

She however said after her first pregnancy she developed irregular menstrual bleeding for which she had cervical dilatation and curretage. After this she got pregnant but abortions followed. There were no history of any other cervical operations in between pregnancies.

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Her last normal menstrual period was 14.4.81 and her gestation was therefore 12 weeks. Her expected date of delivery was 21.1.82. She had a haemoglobin of 13.5g/dl and her blood pressure was 110/80 mm mercury. Her urine contained no protein and she had no peripheral oedema. She was admitted on the first visit for further evaluation and treatment.

Past Obstetric History:

ODER	PLACE OF DEL.	YEAR OF DEL.	MODE OF DEL.	GEST DEL.	BABY'S WEIGHT	PUEPEM
1	Bagamoyo	1975	SVD	39 Weeks	2.800	Normal
2*	Bagamoyo	1977	SVD	24 wks	600g	Normal
3*	Bagamoyo	1978	SVD	24wks	800g died	Normal
4*	Bagamoyo	1979	SVD	22	600g	Normal
5th	CURRENT	1981				

N.B.: * For details see history of Present illness above. SVD = Spontenous Vertex delivery.

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Gynaecological History:

The patient had menarche at 14 years followed by regular cycles of 28 days with bleeding which lasted 4 days with normal flow. There was no history of intermenstrual bleeding except the irregularity which developed after the first delivery for which she had dilatation of cervix and uterine curretage. She had no history of operations on the cervix.

Medical and Surgical History:

There was nothing relevant.

Social and Family History:

She was a primary school teacher married to an engineer. She drank moderate amounts of alcohol but did not smoke.

Examination on Admission :

She was a healthy looking woman, not pale and not in pain. She had no peripheral oedema. She had a pulse rate of 80/minute and a Blood pressure of 110/80 mm mercury. Her cardiovascular and respiratory systems were normal.

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Abdominal Examination:

The abdomen was obese without obvious distension. There were no surgical scars. Palpation showed no area of tenderness and the liver and spleen were not palpable. The renal areas were not tender and there were no masses palpable. The uterus could just be palpated Suprapubically at about 12 weeks gestation.

Vaginal Examination:

Vaginal examination was done as explained in the introduction. The vulva and vagina were normal. The cervix was soft, 1cm long and about 2cm dilated. The uterus was 12 weeks pregnant the adnexae were normal.

Investigations:

Her blood group was O Rh Positive.
The V. D. R. L. was negative
Her urine contained no sugar, pus cells or casts.
The Urine culture was sterile
Blood Urea was 15mg% and Serum Creatinine was 0.8mg%.
The Haemoglobin was 13.5g/dl.

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A diagnosis of cervical incompetence was made and a decision was made to perform a cervical circlage. The patient was on bed rest for two weeks during which the above investigations were done and she reached 14 weeks gestation.

Pre-Operative Preparation:

The patient was prepared as for vaginal operation (see introduction). Consent was obtained for the operation from the patient after an explanation of the procedure had been given to her. She was fasted overnight and was given 0.6mg atropine intramuscularly ½ hour before going to theatre.

Technique:

The patient was put on the lithotomy position after she had been anaesthetised. For anaesthesia she was induced with thiopental sodium 250mg intravenously and maintained on Nitrous oxide: oxygen 50:50. Mechanical ventillation was used. The bladder was catheterised as explained in the introduction. The anterior and posterior vaginal walls were retracted gently but sufficiently to expose the cervix and the surrounding vagina fornices. The vagina and cervix were cleaned with chlorhexidine. The anterior and posterior lips of the cervix were grasped with sponge-holding forceps and pulled downwards.

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A number 2/0 silk was used. A length of the suture long enough to allow manipulation and tying high in the vagina was placed on a small round bodied curved needle. The suture was placed at the level of the junction between the smooth mucosa of portio vaginalis and the rugosa mucosa of the vagina acording to the technique of McDonald (1).

The needle was directed into the stroma, of the cervical wall and the endo cervical canal was avoided. Bites were placed at 10 o'clock, 70' clock 5 o'clock and 2 o'clock. The cervix was securely held while each bite was placed gentle traction of the cervix enabled the placement of the sutures. The sutures were tied on the anterior surface of the cervix with a surgical knot.

A Hegers dilator No. 6 was placed in the cervical canal and the knot was tied just tight enough for the dilator to pass. The sutures were cut and long ends were left in place for later easy Identification and removal. The operation time was 25 minutes. The anesthesia was discontinued and the patient returned to the ward.

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Post Operative treatment:

The patient was kept on bed rest for 4 days and was asked to report any vaginal bleeding or abdominal pain. She was instructed to report if any gush of fluid from the vagina occured.

She was discharged after four days because she did not develop bleeding or abdominal pain. She developed no fever, vaginal discharge or leaking of liquor. She was adviced to rest at home and report to hospital immediately if she developed vaginal bleeding, abdominal pain or watery discharge per vagina. She was scheduled to attend antenatal care fortnightly until 28 weeks of gestation and thereafter weekly up to term.

She was informed that the stitch will be removed at 38 weeks of gestation or sooner if labour started.

Subsequent Antenatal Care and Delivery:

She paid fifteen more visits to the high risk antenatal clinic where no abnomarlities were detected. Her Haemoglobin was 12g/dl in the last visit. She did not develope bleeding or fever and she did not leak liquor.

The foetal movements were heard at 18 weeks gestation and the fundal height grew in proportion to the dates. She gained 12kg. up to 38 weeks and neither her urine nor her blood pressure had any abnormality.

She was admitted at 38 weeks gestation as advised. A sterile cusco's bivulvular speculum was introduced into the vagina and the suture identified. It was picked with a dissecting forceps and using a Mayo's scissors it was divided. The knot was then grasped with an artery forceps and pulled. The stitch came out. She did not need any analgesia for this procedure. She was discharged after 24 hours and instructed to come to hospital for delivery if contractions started.

She delivered a 3.5kg male baby with Apgar score 10 at 5 minutes. She had no postpartum haemorrhage. She was advised that she will need a reapplication of the stitch in her future pregnancies.

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COMMENTS:

Cervical incompetence is among the treatable causes of midtrimester abortion. It is said to be the main contributing factor to pregnancy loss between 20 - 28th weeks of gestation (2). The cause is usually iatrogenic and histories of previous dilatation of cervix, amputation or conisation of the cervix are present. There is sometime a history of difficult delivery with or without cervical tear. In a few cases no cause can be found and are supposed to be due to congenital or developmental weakness.

In this case there was a history of cervical dilatation. This could have been the cause because it has been shown that cervical dilatation beyond 8mm causes splitting of the cervical tissue (3). There was also a typical (4) history of unsuspected painless dilatation of the cervix, spontenous rapture of membranes prematurely followed by abortion in the second trimester without bleeding. Where the history is typical with or without history of cervical operation or trauma, incompetence of cervix should be diagnosed and treatment instituted.

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It is preferable that the patient be seen in between pregnancies when a Hega's dilator No. 8 will be found to pass easily through the cervix and hysterograph may confrim the diagnosis. The later will also exclude or reveal uterine fibroids, congenital abnormalities and Synechiae. This patient presented to us while pregnant and our aim was to prevent abortion.

Since McDonald (1) reported his first successful case treated by ligation of the cervix, his way of applying the stitch has been prefered and described as easy removable and facilitating vaginal delivery (4). Other methods that have been used to ligate the cervix include the Shirodka stitch (6) which is more difficult to apply. Occlusion of the cervix is supposed to work by altering the polarity of the uterus and therefore discouraging contractions and affacement.

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The suture is contraindicated if there were uterine contractions, the membranes raptured or if bleeding or infection was present. Success with the McDonald suture was found to be more when the history was typical (4) but others (5) would apply the stitch in all patients with two consecutive late abortions where no apparent cause was found. In this patient who had both the history suggestive of incompetance and previous dilatation of the cervix McDonald stitch was chosen for her treatment. The patient was kept to 14 weeks to minimise the chance of an abortion occuring due to developmental errors and to allow placentation to be complete.

Some workers (2) administer antibictics postoperatively but others (4) do not give antibiotics to most of their patients. The removal of the stitch at 38 weeks gestation is mandatory for the pregnancy having reached maturity the stitch serves no purpose. Unless there is preferred and was the case here although others (2) induce labour and deliver the patient within twelve hours after removing the stitch.

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REFERENCE :

1) McDonald I. A.
Suture of the Cervix for inevitable miscarriage J. Obstet. Gynaec. Brit. Emp. 64: 346, 1957.

2) Forster F. M. C.
The Incompetent Cervix: The Challenge
Med. J. Aust. 2: 568, 1977

3) Liu, D. T. Y. Black, M.M. Melcher D.H. et al
Dilatation of the parous non pregnant cervix
Brit. J. Obstet.Gynaec. 82: 846, 1975.

4) Cushner I. M.
The Management of Cervical Incompetence
by a purse-string suture:
Am. J. Obstet. Gynaec. 87: 882, 1963.

5) Donald I,
Abortion,
Practical Obstetrics Problems 5th Ed.
Lloyd - Luke Ltd., London.

6) P. R. Myerscough
Munro Kerr's Operative Obstetrics
9th Ed. 1977: Bailliere Tindall - London.

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IRON DEFICIENCY ANAEMIA IN PREGNANCY

BLOOD TRANSFUSION:

TOTAL DOSE INFERON:

Name: Mrs. A. N. Age 30 Years

Address: Ubungo Dar Es Salaam

Date of Admission: 5.4.81

Date of Delivery: 19.6.81

Date of Discharge: 21.6.81

SUMMARY:

Mrs. A. N. was admitted to Muhimbili Medical Centre antenatal ward due to anaemia in pregnancy. She had booked at a peripheral clinic where the haemoglobin was found to be low. An attempt to improve it by oral haematinics had failed and so she was referred to Muhimbili High risk clinic for management. Her haemoglobin was found to be 7g/dl. Her stool and urine were normal and her blood picture showed microcytic hypochromic cells with anisocytosis and polychromasia. The serum bilirubin was not increased and reticutocyte count was less than 1%. The bone marrow was normoblastic with no stainable iron granules.

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She received two units of blood transfusion, a total dose inferon and was discharged with folic acid 5mg thrice daily. She delivered eight weeks later with a haemoglobin of 12g/dl and was seen postnatally six weeks later with a haemoglobin of 13.5g/dl.

Antenatal and Present Obstetric History:

The patient booked at 24 weeks in a peripheral clinic. Her last normal menstrual period started on 5.9.80 and since she had a 28 days cycle with bleeding which lasted 3 days her expected date of delivery was 12.6.81. There was no history of bleeding during this pregnancy. She had nausea, vomiting and poor appetite during the first twelve weeks only. She paid three visits to the clinic where apart from the low haemoglobin (7g/dl) there was no abnormalities noted.

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PAST OBSTETRIC HISTORY:

PLACE OF DEL.	YEAR OF DEL.	MODE OF DEL.	GESTAT. AT DEL.	BABY'S COND.	BABY'S SEX	BABY'S WEIGHT	PUEPERUM
1. ORH	1970	SVD	TERM	SATIS-FACTORY	FEMALE	UNKNOWN	NO PROBLEMS
2. ORH	1971	SVD	TERM	SATIS-FACTORY	MALE	UNKNOWN	UNCOMPLIC ATED
3. ORH	1972	SVD	TERM	GOOD	MALE	UNKNOWN	NO PROBLEMS
4. ORH	1974	VACUUM EXTRACT.	TERM	GOOD	FEMALE	3.7kg.	NO PROBLEMS
5. ORH	1975	SVD	TERM	GOOD	MALE	3kg.	NO PROBLEMS
6. MMC	1977	SVD	TERM	GOOD	FEMALE	2.5kg.	POSTPARTU HAEMORRHA
7. MMC	1979	SVD	TERM	GOOD	FEMALE	3kg.	NO PROBLEMS
8. MMC	1980	SVD	37-38	GOOD	FEMALE	2.8kg.	NO PROBLEMS
9.	1981	C U R R E N T					

SVD = Spontenous Vartex delivery

ORH = Ocean Road Hospital

MMC = Muhimbili Medical Hospital.

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Gynaecological History:

She had Menarche at 13 years followed by a 28 days cycle with three days normal flow. She had not used contraceptives. There was no intermenstrual bleeding.

Past Medical and Surgical History:

There was nothing relevant.

Social and Family History:

She was married to a peasant. She never attended school. She did not smoke or drink alcohol. She mainly ate normal family diet composed of maize meal and vegetables with occasional fish or beans.

Physical Examination and Admission:

The patient looked tired. She had pale conjuctive palms and nailbeds. She was not jaundiced. She had no peripheral oedema, clubbing of fingers or koilonychia. She was moderately dyspnoeic.

Cardiovascular and Respiratory Systems:

Her pulse rate was 100/minute, regular and of normal volume. The blood pressure was 100/60mm mercury. The jugular venous pressure was not raised. The heart size and sounds were normal. There was a haemic systolic murmur which did not radiate to the axilla. The Respiratory system was normal.

Abdominal Examination:

The abdomen was uniformly enlarged. The liver and spleen were not palpable. The renal angles were not tender and there were no masses palpable. The fundal height was 30 weeks gestation. The lie was longitudinal with cephalic presentation. There was adequate liquor in the uterus and the baby was estimated to be 1.5kg. - 1.8kg. The foetal heart was heard.

Investigations:	Results:
Haemoglobin	7g/dl
Packed Cell volume	25%
Reticulocyte Count	Less then 1%
Blood film for cell morphology	Microcytic hypochromic with anisocytosis and Polychromasia.
Sickle cell test	Negative
Serum Bilirubin	0.8mg/100ml.
Stool microscopy	No parasites
Urine culture and Sensitivity	No organisms grown
Bone marrow	Normoblastic bone marrow with no stainable iron granules.

With the above clinical and laboratory findings a diagnosis of iron deficiency anaemia was made.

Treatment of Follow Up:

Blood group and cross-matching was done and she received two units of Blood group O Rhesus positive. A total Dose Imferon was given following the dose schedule supplied by the manufacturers. She was started on oral folic acid 5mg three times a day. The post transfusion haemoglobin three days later was 9.0g/dl. She was given advice on diet and she was discharged on folic acid to be followed up in the outpatient antenatal clinic. She paid four more visits. Her haemoglobin rose steadily to 13.5g/dl at delivery.

Delivery:

She delivered at 41 weeks gestation. The baby weight 3.6kg and was male with a 5 minute apgar score of 10. She was given ergometrine intravenously 0.25mg with delivery of the anterior shoulder. The placenta was delivered by controlled cord traction as soon as the first uterine contraction was felt after the delivery of the baby. The blood loss was 300ml. Her post delivery haemoglobin 24 hours later was 13.0g/dl.

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She was discharged 48 hours. after delivery and continued with folic acid until she was seen six weeks later in the postnatal clinic with a haemoglobin of 13.5g/dl. Her baby was well without signs of anemia. She had a tubal ligation done a week later.

COMMENTS:

Anaemia is the most common cause of antenatal admission in Muhimbili Medical Centre. It accounted for 51% of all antenatal admissions of 1979/80 (1) It has been shown (2) that pregnancy anaemia in the coastal belt of Tanzania is mainly of the iron deficiency type and that it affects over 90% of the pregnant women. When anaemia in pregnancy is severe it may kill the mother directly through cardiac failure or indirectly through other complications. Anaemic patients have poor resistance to infections (3) although this has been questioned by others (4). A minor blood loss which would be of no consequence in a non anaemic patient may be fatal in a patient. with anaemia and she does not tolerate anaesthesia well should it be required (5). The foetus is usually a complete parasite so that it is not born anaemic (2) (5).

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The cause of the increased prevalence of Iron deficiency anaemic in the tropics has been attributed to dietary deficiencies with hookworm infestation as a contributory factor (2) (6) but there is no doubt that other factors such as sickle cell disease (7) malaria (2) and folic acid deficiency (6) do play a part. Recurrent pregnancies in a patient with poor dietary iron intake as was the case in this patient without supplimentary iron and folic acid is a very important factor. It has been said that anaemia in the tropics has multiple causes (5) so that the blood film may show features indicating more than one type of anaemia. It has been demonstrated more than one type of anaemia. It has been demonstrated that patients kept in hospital on a good diet increased their haemoglobin by more than 1g/dl per week (9).

Other workers (8) in this country have shown that empirical treatment of anaemia in pregnancy greatly improved the standard of care of pregnant women. This case demonstrates what active diagnosis and treatment of a patient with anaemia can do to her low haemoglobin.

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Parenteral iron by total dose infusion ensures a readily available supply of iron for the requirement of pregnancy and correction of the anaemia.

Prevention of anaemia may be done through general improvement in the socio-economic status of the population, health education on the proper nutrition and supplying nutritional suppliments in form of iron and folic acid. Malaria prophylaxis and eradication of hookworm infection will further help prevent anaemia. In a patient such as the one treated above advice on family planning with proper contraception is mandatory.

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REFERENCES:

1) Ntimavalye L. A. R.
Annual Report: Department of Obstetrics and Gynaecology, Muhimbili Medical Centre 1979/1980.

2) Nhonoli A. M.: The natural history of Pregnancy anaemics in an East African Coastal belt. East Afr. J. Med. Research 1 (1): 13, 1974.

3) Lancet 2: 328, 1974 Editorial
Iron and resistance to Infection

4) Massawe A. E. J., Muindi J. M. and Swai G. B. R. Infections in Iron deficiency and other types of anemia in the tropics: Lancet 2: 314, 1974.

5) J. B. Lawson: Anaemia in Pregnancy Obstetrics and Gynaecology in the tropics by J. B. Lawson and D. B. Stewart Edward Arnold London.

...../90

6) Medical J. Zambia - Editorial
Vol. 9 (5); 118, 1975

7) Ssebebi E. C. T. and Bulwa F. M.
Sickle cell trait anaemia in Pregnancy
E. Afr. Med. J. 54 (5): 258, 1977

8) Dyles A. B. and D'SA A: A case for empirical therapy in the management of anaemia in Pregnancy in developing countries E.Afr. Med. J. 52: (10): 256, 1975.

9) F. ". Miro' The epidemiology i of anaemia in Pregnancy in the eastern Proveince of Uganda. Proceddings of the Annual Scientific Conference of the Association of Gynaecologists and Obstetricians of Tanzania 1979 Edited by L. A. R. Mtimavalye.

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BAD OBSTETRIC HISTORY

INDUCTION OF LABOUR

SPONTENEOUS VERTEX DELIVERY:

Name: Mrs. P. K. Age 28

Address:- Kigogo Dar Es Salaam.

Date of Admission: , 10/6/82

Date of Delivery: 12/6/82

Date of Discharge: 14/6/82

SUMMARY:

Mrs. P. K. was admitted to Muhimbili high risk labour ward because of bad Obstetric History. She had booked at Muhimbili high risk clinic at 10 weeks gestation because she had four previous full term intrauterine deaths. She had been investigated as an outpatient but there was no abnormality found. She was therefore admitted at 38 weeks and had a spontenous vertex delivery following induction of labour. A normal 3.2kg. male baby was born with a five minutes Apgar score of 10.

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Antenatal and Present Obstetric History:

The patient booked at 10 weeks in Muhimbili high risk clinic because she had been advised to do so in the previous pregnancy due to a history of repeated stillbirths. She paid 10 visits. Her last normal menstrual period started on 10/9/81 and the booking fundal height as determined by bimanual examination corresponded to dates. She had a 28 days cycle which was regular so her expected date of delivery was 17/6/82.

She had the following investigations done:-

1) Haemoglobin - 12.5g/dl and remained so throughout.
2) Blood Pressure - 120/80mm mercury and did not rise.
3) Urine Protein - was negative all the time
4) Urine Microscopy - was normal
   culture - was negative
5) Blood Urea / creatinine - Urea was 10mg/dl
   - Creatinine 0.5mg%
6) Blood Group - was B - Rh Positive
7) VDRL - was negative

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8. Fasting Blood sugar and Glucose Tolerance Test were normal. She did not develop fevers or any abdominal pains. She did not develop vaginal bleeding or fits. The foetal movements were felt at 18 weeks and the fundal height and abdominal girth progressively increased with weeks of gestation. The maternal weight increased from 60kg. at booking to 72kg. at term.

At 37 weeks gestation a clinical pelvic examination was done as described in the introduction. Both the clinical pelvis assessment and the head fitting test (see 04 for description) showed that the pelvis was adequate for the baby. The foetus was estimated to be 3kg. There was moderate amount of liquor in the uterus. She was instructed to report to the high risk labour ward at 38 weeks gestation for delivery.

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Past Obstetric History:

Order	Year	Antenatal Complic.	Place Del.	Mode of Del.	Del. Comp/	Out-come	Pueperum
1.	1972	Intrauterine death 40 weeks	OGH	SVD	NIL	Macerated stillbirth 3.5kg.	Normal
2.	1974	IUFD 41 weeks	OGH	SVD	Normal	Macerated stillborn 3.6.kg	Normal
3.	1976	IUFD 40 weeks	MMC	SVD	Normal	Stillbirth	Normal
4.	1974	IUFD 41 weeks	MMC	SVD	Normal	Stillbirth	Normal
5.	1982	-	C U R R E N T				

No. D: IUFD = Intrauterine foetal death SVD= spontaneous vertex delivery.

MMC = Muhimbili Medical Centre

OGH= Ocean Road hospital.

No congenital abnormalities were noted in the previous births and there had not been histrory of vaginal bleeding or fever. There had been no history of hypertension, urinary tract infection and she had attended antenatal clinic in the peripheral hospital and delivered in Ocean Road or Muhimbili hospital following cessation of foetal movements.

The babies weights had been about 3 killograms.

Gynaecological History:

She had menarche at 14 years followed by regular menstrual cycles every 28 day with 3 days normal flow. She had no intermenstrual bleeding and had not used contraceptives. She had no history of vaginal discharge.

Medical and Surgical History:

She was not diabetic or hypertensive. She had no history of urinary tract infection. She had not undergone any surgery.

Family and Social History:

There was no family history of Diabetes Mellitus hypertension or tuberculosis. She was a Primary school teacher married to a Secondary School teacher. She neither drank alcohol nor smoked cigarettes.

Examination on Admission:

The patient was admitted at 39 weeks gestation in good general condition. She was not pale, had no peripheral oedema and was feeling foetal movements.

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Cardiovascular System:

Her pulse rate was 80/minute regular of good volume. The blood pressure was 120/80 mm mercury. The heart size and sounds were normal.

Respiratory System:

There was no abnormality.

Abdominal Examination:

The abdomen was uniformly enlarged. There was no area of tenderness. The liver, spleen and kidneys were not palpable. The fundus was 38 weeks of gestation. The foetus was longitudinal lie, cephalic presentation with an attitude of good flexion. The foetal heart rate was 144/minute regular. There was moderate amniotic fluid in the uterus and the foetus was estimated to be 3kg.

Vaginal Examination:

A vaginal examination was done as detailed in the introduction to assess inducibility by using the Bishops score (1). The cervix was soft and pointing anterior. It was 1cm long and 3cm dilated. The head was 2cm above the level of ischial spines. A bishop score of 9 was given.

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Preparation for Induction:

The patient was prepared as if for perineal operation (see introduction). An enema was given the night before and in the morning of induction. An explanation of the procedure and the likely outcome (see discussion) was given to the patient and consent for the procedure was obtained. No premedication was given.

Techniques:

1) Artificial Rapture of membranes was done as described previously (62). No meconium was seen and no cord prolapse was palpated.

2) A 500ml. intravenous drip of 5% Dextrose was set up in which 2.5 units of Syntocinon had been added. The drip was run at 2.5MU/ minutes and doubled every 30 minutes until 10MU/Minute were running then kept constant as the contractions had started.

3) The foetal heart rate was monitored every 15minutes.

4) The strength; duration and frequency of uterine contractions were monitored every 15 minutes.

5) The drip was stoped when 4 strong contractions were occuring every ten minutes and lasting 30 - 45 seconds.

6) She was allowed only fluid diet.

Progress and delivery:

Labour started two hours later with the drip runing at 10 MU/Minute. She had no foetal distress and no meconium developed.

The first stage lasted 8 hours. The second stage lasted 45 minutes and she had a spontaneous vertex delivery of a normal male baby weighing 3.2kg. with a one minute apgar score of 9.

The third stage lasted 30 minutes. The placenta was delivered by controlled cord traction after intravenous ergometrine 0.25mg which was given with the delivery of the anterior shoulder. There was no evidence of placental infacts or retroplacental clots. The placenta weighed 500gms. There was no postpartum haemorrhage. She was discharged after 48 hours in good condition and was referred to the post-natal clinic six weeks later.

COMMENTS:

The managements of a patient with recurrent intrauterine deaths demands a detailed history taking, physical examination and a fairly large amount of laboratory investigations to try to elicit the probable cause.

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It is always wise to start the investigations when the patient is not pregnant otherwise the tests that are contraindicated in pregnancy will be left out. These will include the ones requiring radiology. The causes involved will include Hypertensive diseases, Diabetes and Renal diseases. Blood group incompatibility, Syphilis and Congenital uterine malformation may be a cause. Postmaturity is another cause. Even after thorough investigation there may be no cause to find (1).

In this patient there was apparently no cause to find. The management of such a case demands that close monitoring of the foetal wellbeing in the last trimester be made to discover any foetal distress. Throughout pregnancy the increasing fundal height, maternal weight gain and abdominal girth will reasure that growth is normal (2) Later in the last trimester the Combination of oestriol level in 24 hours urine and Biparietal diameter measurements by ultrasound have been found to be very accurate in predicting fetal wellbeing (3). In the absence of these tests in our unit and in the presence of normally progressing pregnancy a decision was made to deliver the patient at 38 weeks gestation.

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In the absence of more sophisticated methods to determine gestational age but in the presence of a reliable menstrual history and an early bimanual examination at 10 weeks we felt confident of the gestational age.

The delivery of a patient with recurrent intrauterine deaths when one has failed to locate the cause of the previous deaths needs special consideration. In the absence of any indication for abdominal delivery such as cephalopelvic disproportion vaginal delivery was chosen. In this case one would have liked to conduct an oxytocin challenge test to determine how the foetus is going to react to the stress of labour but in the absence of electronic fetal monitoring and since there had been no reason to suspect intrauterine growth retardation induction was proceeded forthwith.

The use of syntocinon drip simultaneous with low amniotomy has been shown to be more effective than either alone and to reduce greatly the induction delivery interval. (4) (5) Prostaglandings have been used orally but the dosage is limited by side effects and are not superior to syntocinon when combined with amniotomy (6).

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Extraamniotic prostaglandins are efficient but when the cervix is 4cm or more dilated and membranes raptured the method is not practicle. (7) In the circumstances prevailing the method used was thought to be the best.

REFERENCES:

1) Donald I: Bad Obstetrics History Practical Obstetrics Problems 5th Ed. 1979 Lloyd - Luke Ltd., London.

2) Tejain N. Mann L: and Weiss R. T. Antenatal diagnosis and Management of the Small for Gestational age Fetus: Obstetrics Gynaecology 47, 31, 1976.

3) Of ofsky H. J. High risk Pregnancy with emphasis upon maternal and fetal wellbeing clinical obstetrics and Gynaecology 16,3: 1973.

4) Bradford P. W. and Gorgon G: Induction of labour by amniotomy and Simultenously Syntocinon infusion J. Obstet. Gynaec. Brit. Cwth 75: 698 1968.

...../102

5) Garud M. A. , and Simmons Sc: Induction of labour by routine use of intravenous syntocinon at amniotomy. J. Obstet. Gynaec. Brit. Cwlth 75:702, 1968.

6) Thiery M., Siang Ay, Kemptinine D., Deron R, Marlens G Venkets H, and Amy J. J.: Induction of labour by prostaglanding E_2 tablets
J. Obstet. Gynaec. Brit. Cwlth 81, 303 1974.

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RHEUMATIC HEART DISEASE IN PREGNANCY

ACUTE PULMONARY OEDEMA

ASSISTED VAGINAL DELIVERY AT TERM:

Name: Miss J. C. Age 21 Years

Date of Admission 7/8/80

Date of Delivery: 3/12/80

Date of Discharge: 18/12/80

SUMMARY:

Mrs. J. C. was admitted to the Muhimbili high risk antenatal ward because she developed an acute respiratory distress when she was 20 weeks pregnant. History and examination revealed that she had an acute pulmonary oedema secondary to mitral valvular stenosis. She also had history of Rheumatic fever with migrating arthritis and fever as the presenting symptoms. She received treatment for pulmonary oedema, was put on prophylactic Penicillin and had bed rest in hospital till delivery at term.

She had an assisted vaginal delivery at term. The postpartum course was uneventful. She was discharged to the cardiac clinic fourteen days postdelivery.

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History of the Presenting Illness:

The patient who was still unbooked was well and nursing her second pregnancy at 20 weeks gestation. She had not felt foetal movements. She developed palpitations and difficult in breathing after she had quarreled with a neighbour. She noted that she could not breath properly and had developed repetitive irritating cough. She had no dysphagia but had horse voice. She had not coughed out blood but she produced frothy sputum. She had no fever but was sweating.

There was no history of vomiting. She had never had such air hunger before and she was not attending cardiac clinic. She had been treated several times for migrating joint pains and fever which her doctor had termed rheumatic but the last attack was 8 months ago.

Obstetric History:

She was Gravida two Para zero. The first pregnancy ended in 3 months abortion and she was evacuated. There were no pueperal complications. Her last normal menstrual period was March 10, 1980.

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Gynaecological History:

She had menarche at 15 years which was followed by regular 30 days cycle with bleeding which was normal and lasted 5 days. Apart from the uterine evacuation following the spontenous abortion she had no history of vaginal operation or pelvic infection. She was not on contraceptives before conception.

Past Medical and Surgical History:

She had never been operated. She had been admitted several times with fever and joint pains. She had never had heart problems. She was not hypertensive or diabetic.

Social and Family History:

She was unmarried, working as a clerk and living with her mother. She smoked no cigarettes but drank moderate amounts of alcohol.

Examination on Admission:

The patient looked anxious but was not pale or jaundiced. She was dyspnoic moderately cyanosed and restless. She had slight peripheral oedema.

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Cardiovascular System:

Her pulse rate was 110/minute regular but poor volume. The blood pressure was 110/60mm mercury. The Jugular venous Pressure was not raised. There was no bulge in the precordium but the apex beat could be seen pulsating in the left 5th intercostal space midsclavicular. Palpation revealed a sharp taping apex beat. An apical diastolic thrill was felt. The heart size was judged to be normal. There was a loud first heart sound best heard at the apex. An opening snap shortly after the second sound was heard maximally just internal to the apex. A low pitched rumbling mid-diastolic murmur followed the opening snap and was best heard at the apex when the patient was reclining and slightly tilted to the left side.

Respiratory System:

The patient was very dyspnoic with deep frequent respirations. The respiratory rate was 25/mimute. There was symetrical chest movement on breathing. She had bilateral basal crepitations which persisted on coughing otherwise the breath sounds were normal.

Abdominal Examination:

The lower abdomen was distended to the umbilicus. There were no areas of tenderness. The liver and spleen were not palpable. The renal areas were normal. The fundal height was 20 weeks gestation. The foetal heart was not heard.

Diagnosis:

With the above history and findings a clinical diagnosis of "Acute pulmonary oedema secondary to mitral stenosis was made.

Immediate Management:

1) The patient was proped up in bed and was given oxygen.
2) She was given morphine 15mg. intramuscularly.
3) Frusemide 80mg. intravenous was given
4) Venesection was done and 400ml. of blood was removed.
5) She received 250mg. aminophylline intravenously.
6) Digoxin 1mg. was given intravenously and then 0.5mg after 6 hours intramuscularly. Then 0.25mg was given daily.
7) Benzathine Penicillin 2.4 MU was given intramuscularly.

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An urgent chest x-ray showed prominent hilar vascular markings with loss of normal translucency in the peripheral lung fields. The haemoglobin prior to venesection was 13g/dl. The physicians were consulted and helped with the above management.

The patients breathing gradually became normal. The cyanosis disappeared and the wet sounds in the chest were not neard in six hours. The heart rate stabilized at 70/minute with better volume and digoxin was stopped after five days. She was advised to remain in hospital till delivery and to report any dysphoea nocturnal or otherwise. She was instructed 12 hours rest at night and as many hours as she could during the day. Her temperature was charted twice a day and the chest was auscultated twice a day to screen for any developing infection. Visitors were limited to a minimum. She was warned against exeretion.

Progress during subsequent Antenatal Care:

She did not develope further attacks. She developed no fever, her urine remained sterile and the chest was clear all the time.

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She gained weight normally and the fundal height grew in proportion to dates.
At 32 weeks gestation she was assessed to be in satisfactory condition. Her hamoglobin was 12.5g/dl and she had no signs of heart failure. Her Blood Pressure was 120/70mm mercury and her urine had no proteins.

Delivery:

The patient had spontenous labour at 38 weeks gestation. She had no dyspnoea or cough. There was no peripheral oedema and the Jugular venous pressure was not raised. A rumbling mid diastolic murmur was still present but she had no tachycardia and the Blood pressure was 120/70mm mercury. Her liver and spleen were not palpable. The fundal height was 38 weeks of gestation. The presentation was cephalic with 4/5 of the foetal head was above the brim. The baby's weight was estimated to be 3.8kg.

Vaginal examination was done as detailed in the introduction and the cervix was 3cm dilated fully taken up and the membranes were bulging. Pelvis assessment (see 0_4) showed that the pelvis was adequate for the baby. Artificial rapture of membranes was done (see 0^2.....) Ampicillin 500mg. 6 hourly intramuscularly was given throughout labour as prophylaxis and Pethilophan 100mg. 6 hourly.

was given for analgesia as required. She was kept on the proped up position throughout labour.

Oxygen was kept ready in case it was required. The first stage lasted 8 hours. A generous posterolateral episiotomy was done as described in the introduction.

A low cavity vacuum extraction was done (as in 01 . . . .). The patient was discouraged from pushing. A2.6kg. male baby with Apgar 10 at five minutes was delivered.

The third stage was managed passively. The accoucher awaited signs of placenta separation namely lengthening of cord, a gush of blood and rising of the fundus. No ergometrine was given. The blood loss was about 350ml. The placenta and membranes were delivered complete after 15 minutes. The episiotomy was repaired as detailed in the introduction.

Pueperum:

The patient was kept proped up and on close observation for signs of cardiac failure. The chest was auscultated twice a day for crepitations and observation for breathlessness was made. She was transfered to the postnatal ward after 48 hours where she stayed till the fourteenth day.

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The pulse, blood pressure respirations and temperature remained normal. The lung bases remained clear. She was encouraged to move about after the first 48 hours.

She was then discharged to be followed in the cardiac clinic and to report to the postnatal clinic after six weeks.

Follow up:

She was seen in the postnatal clinic after six weeks. Her general condition was good. She had no palpitations or dyspnoea. Her haemoglobin was 12g/dl. and the pulse was 80/minute . Her Blood Pressure was 120/70mm mercury. The Jugular venous pressure was not raised and the lung bases were clear. Examination of her heart revealed a first loud heart sound with an opening snap and a low pitched rumbling mid diastolic murmur best heard at the apex. The heart size was normal.

The uterus was found to have involuted completely and she had no vaginal discharge. She was discharged through the family planning to the cardiac clinic.

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COMMENTS:

During pregnancy the physiological changes that take place lead to an increased blood volume of up to 30 - 40% and an increased cardiac output of up to 40% maximum at about the 32nd week of gestation (1) (3). There are also mechanical disadvantages that arise from the enlarging uterus which tends to splint the diaphragm and obstruct the blood flow in the inferior vena cava. Pregnancy therefore calls on the heart to do extra work. In a woman with a normal heart an existing cardiac reserve helps to handle the increased blood volume and the cardiac output by increasing stroke volume and without much alteration of pulse rate or heart size. (1) In a patient with an already compromised heart the increased burden on the heart may easily cause heart failure.

The patient with pregnancy and heart disease may be quite asymptomatic prior to pregnancy and yet present with an acute pulmonary oedema during pregnancy (1). This was the case in this patient who had an uncomplicated asymptomatic mitral stenosis.

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Emotional upset which caused increased heart rate was the precipitating cause. It has been noted that tachycardia and infection are the commonest precipitating causes of acute pulmonary oedema.(2) It is therefore important to avoid physical exertion, psychic stress, infection with fever and any other factors which increase heart rate (2). Antenatal care must ensure that the heart is not overburdened or that an unnecessary demand for extra amount of blood flow is not placed on the heart during pregnancy. The demand due to pregnancy itself is already enough or too much.

In the management of these patients bed rest offers the best insurance against difficulties in heart disease and cardiac failure and cardiac arrhythmias are less likely to develope during bed rest and when they are already present the response to therapy is much better when the heart is resting (2). Acute pulmonary oedema is managed in the same usual way. Venesection is life saving provided the patient is not anaemic and the diagnosis is certain (1).In a patient of this sort in Class IV (New York Heart association classification) (4) bed rest in hospital is the best preventive measure against future complications.

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Rheumatic heart disease is he commonest type encountered in pregnancy (1) (6) and acute pulmonary oedema accounts for more than 50% of the maternal deaths in Rheumatic heart disease (1).

Labour in these patients is usually easy (5). Exertion was not permited for fear of precipitating cardiac failure. Therefore sedation and an assisted second stage with episiotomy and vacuum extraction was conducted. Prophylactic antibiotics were given to prevent bacterial endocarditis. The third stage was managed passively and ergometrine was not used because it would contract the uterus more and squeeze more blood into maternal circulation increasing the burden to the heart.

The patient with heart disease and pregnancy is five times more at risk and the mortality for the unbooked patients is very much higher (1) (6). The most dangerous period is the first 48 hours after delivery (1) for cardiac failure is most likely to occur during this period. The patient was rested in hospital in a proped up position and close monitoring for signs of failure.

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Family planning advice in these patients is important to allow full recovery from the affects of pregnancy on the diseased heart. For those above 30 years tubal ligation may be suitable because it has been shown that above that age complications are more common (6).

REFERENCES:

1) Donald I
Practicle Obstetrics Problems 5th Ed.
Lloyd - Luke Ltd., London

2) Burch G. E. Heart disease and Pregnancy
American Heart J. 93 (1): 104, 1977

3) Szekely P. and Snaith L.,
Heart disease and Pregnancy
Churchill Livingstone
Edinburg and London 1974.

4) Mendelson C. L.: Cardiac disease in Pregnancy
F. A. Davis Co. Philadelphia 1960.

5) P. R. Myerscough: Munro Kerr's
Operative Obstetrics 9th Ed. 1977
Bailliere Tindall London.

6) Batambuze E. W., D. Arbella P.G. Patel A.K.
Patel R. C. and Somers K: Heart disease in
Pregnancy E. Afr. Med. J. 53 (8): 445, 1976.

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RETENTION OF PLACENTA:

MANUAL REMOVAL:

Name: Mrs. Z. H. Age 35 I.P. No. 817/82

Date of Admission 28/4/82

Date of Delivery 29/4/82

Date of Discharge: 2/5/82

SUMMARY:

Mrs. Z. H. was admitted to Ndlovhili Intensive Care labour ward because she was an elderly primigravida at term and in labour. She booked at a peripheral clinic and was referred to Ndlovhili Medical Centre because she was an elderly primigravida. There were no other abnormal antenatal findings.

She had a spontenous vertex delivery. The placenta could not be delivered by controlled cord traction after 30 minutes despite 0.25mg of ergometrine intravenously. She had no postpartum haemorrhage. She had a manual removal of placenta done under general anaesthesia. She was given broad spectrum antibiotics and made uneventful recovery.

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Antenatal Care and Present Obstetric History:

The patient booked at a peripheral clinic at 16 weeks., where she made four visits. There were no antenatal abnormalities noted. At 32 weeks gestation she was referred to Mubimbili high risk clinic on account of her age which was 35 years. Her last normal menstrual Period started on 29/7/81 and since she had a 30 days regular cycle with bleeding which lasted 5 days her expected date of delivery was 6.5.82. She had no history of vaginal bleeding or pathological discharge in this pregnancy. Her haemoglobin was 12g/dl at 16 weeks and 11.5g/dl at 36 weeks gestation. Her urine contained no sugar and was free of protein. Her blood pressure remained 110/70mm mercury throughout pregnancy.

Past Obstetric History:

She was a Primigravida.

Gynaecological History:

She had Menarche at 15 years followed by a regular cycle of 30 days with 5 days normal bleeding.

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There was no previous history of vaginal discharge or pelvis infection. She did not use contraxeption but was attending infertility clinic before conception. She had no gynaecological operation of any sort.

Medical and Surgical History:

There was nothing significant.

Social and Family History:

There was no history of tuberculosis in the family. No history of hypertension or Diabetes Mellitus. She did not smoke or drink alcohol. She was married to a driver.

Examination on Admission:

Her general condition was good. She was not pale but was obese and with labour pains. She had no peripheral oedema and was not dehydrated. She was a febrile.

Cardiovascular and Respiratory Systems:

She was not breathless. Her pulse rate was 80/minute regular and of good volume. The blood pressure was 100/70mm mecury. Her heart size and sounds were normal. There was no murmurs. The respiratory system was normal.

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Abdominal Examination:

The abdomen was distended uniformly. There were no areas of tenderness. The liver and spleen were not palpable. The renal angles were not tender and no musses palpable. The fundal height was 38 weeks gestation. The lie was longitudinal with cephalic presentation. The head was engaged. The foetal heart was heard.

Vaginal Examination:

Vaginal examination was done as detailed in the introduction. The vulva and vagina were normal. The cervix was 6cm dilated soft and thin and well applied to the presenting head. Clinical pelvic assessment showed that the plevis was adequate for the baby. Artificial rapture of membranes was done and no meconium was seen. There was no cord felt and only 2/5 of the head was above the pelvic brim.

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Delivery:

The patient's labour progressed without problems. The first stage lasted 8 hours and the second lasted 45 minutes. She delivered a 2.8kg baby with Apgar score 9. 0.25mg ergometrine was given intravenously with birth of the anterior shoulder. A controlled cord traction was done in an attempt to deliver the placenta but this proved difficult. The bladder was catheterised and another attempt at delivery of the placenta by Brandt-Andrew's technique was unsuccessful. The episiotomy was repaired to avoid loss of blood. Preparation for manual removal of placenta began 30 minutes after delivery. There was no vaginal bleeding.

Manual removal of Placenta:

The patient's blood was grouped and two units of blood were crossmatched. She was prepared as for perineal operation and was transfered to the theatre. General anaesthesia was used. Hallothane inhalation was used to help with relaxation of the uterus.

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The patient was put on the dorsal position and the surgeon scrubbed and wore a sterile gown, rubber gloves and mask. The right hand was introduced into the vagina after the perineum had been cleaned with salvon and the patient draped with sterile towels.

The hand was folded into a cone and advanced through the cervix into the uterus along the cord. The left hand was used to externally steady the uterus and manipulate it as necessary on the right hand. The hand in the uterus searched for a cleavage of the placental edge and then using the fingers the placenta was pealed off to completion. It was pulled off with the left hand without removing the right hand from inside the uterus. The uterus was inspected and found to be empty. Ergometrine 0.25mg was given intravenously and the right hand was withdrawn. The uterus was well contracted and the placenta and membranes were complete. There was no vaginal bleeding.

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Post operatively she was given penicillin and chloramphenical parentally for 7 days. There was no pyrexia or offensive lochia post operatively. She was discharged after 8 days and was seen after six weeks in the postnatal clinic in good health and without complains. She was advised to deliver in hospital in the next pregnancy.

COMMENTS:

Retained placenta poses an obstetric emergency especially when there is partial separation. In this cases haemorrhage may threaten the life of the mother. Even when there is no partial separation, the manipulations associated with manual removal may introduce infection in the uterus or to the blood and pueperal sepsis may be the end result causing mobidity and even mortality. Often times manual removal of placenta demand general anaesthesia which has its own intrinsic mortality risk and where one has to do without general anaesthesia due to the urgency of the case an inexperienced doctor may cause a perforation of the uterus especially if it is not well contracted.

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It is therefore important that these cases are dealt with early and the third stage of labour is managed properly to avoid retention of placenta.

A placenta may be retained either following mismanagement of the third stage as occurs after intravenous ergometrine when an hour glass contraction ring may form or retention may occur following morbid adhesion to the myometrium. The causes of retention may be (1).

1) Manual removal in the previous birth
b) Vigorous and repeat curretage
c) Presence of submucous myomata with atrophy of the underlying mucosa.
d) Low implantation site (Placenta previa)
e) Pregnancy in the uterine deverticulum
f) Previous caesarean scar
g) Post radium treatment

In this case of an elderly Primigravida. Where retention of placenta is common (2) the cause may be a myoma leading to atrophy of the mucosa and a direct implantation of the placenta on the muscle. There was no bleeding so there was time to prepare for general anaesthesia and manual removal. Mortality in these cases is lower than in cases where there is bleeding and partial separation.

There is always a high incidence of sepsis due to late intervention in a collapsed patient. It has been shown that if intervention is early and chemotherapy used the results are good (3) It has also been noted that manual removal of placenta is easily fetal if undertaken in a patient whose blood pressure at the time is below 80mm Hg systolic (2).

It is thore important to resuscitate the patient thoroughly before undertaking manual removal. In this case preparation for manual removal was been done after 30 minutes post delivery and manual removal was being done after one hour of failure to deliver the placenta. Others (2) have put a limit of two hours after which manual removal must be considered.

It is the authors view that two hours is rather long especially in a developing country where anaesthesia may be difficult to get and blood may be unavailable. Waiting two hours in a case of retained placenta may invite sepsis or may convert a bloodless case into a bloody one if partial separation occurs. One may then be unable to control the haemorrhage or sepsis. General anaesthesia is generally required in these cases but if the urgency of the condition demands or safe anaesthesia is not available then manual removal without

anaesthesia has been described as the safest course to take (4).

REFERENCES:

1) Munro Kenr's Operative Obstetrics 9th Ed. 1977 by P. R. Myerscough: London Bailliere, Tindall.

2) Ian Donald Practicle Obstetric Problems 4th Ed. Lloyd Luke Ltd., London

3) Sewall and Coulton
Am. J. Obstet. Gynaecol. 52: 564, 1946

4) A. D. H. Browne: Manual Removal of Placenta.
Contemporary Obstetrics and Gynaecology 1977 Ed; Geoffrey V. P. Chamberlan. Northwood Publications Ltd.,London Ec. IV 7Q A.

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OBSTRUCTED LABOUR:

RAPTURED UTERUS:

REPAIR OF UTERUS AND STERILISATION:

Name : Mrs. H. A. ; Age 28

Address: - Temeke Dar Es Salaam.

Date of Admission: 8/10/82

Date of Operation: 8/10/82

Date of Discharge: 22/10/82

SUMMARY:

Mrs. H. A. was admitted to Muhimbili labour ward because she had failed to deliver at home. She had labour pains for 36 hours but failed to deliver despite encouragement from relatives. The labour pains had then disappeared and she was now having continuous abdominal pain. She was found to be pale and in shock. Palpation revealed signs consistent with a raptured uterus. She was resuscitated with isotonic saline and blood transfusion. She was started on broad spectrum antibiotics and a laparatomy was done. Delivery of a fresh still birth was effected, repair of the uterus done and bilateral tubal ligation done using Pomeroys method. She had an uneventful postoperative recovery.

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Antenatal and Present Obstetric History:

The patient booked at 28 weeks gestation in a peripheral clinic. She made only two visits in which no abnormalities were recorded. Her haemoglobin was recorded to be 12g/dl and the blood pressure was 120/70mm mercury. She was not seen in the clinic after 30 weeks gestation. She had no antenatal history of vaginal bleeding or abdominal pain. She had been in labour for 36 hours. The membranes had ruptured 6 hours after the start of labour pains and she came to hospital because she failed to deliver and had developed continous abdominal pain and vaginal bleeding. She had no history of taking herbal medicine.

Past Obstetric History:

She was Para 5 all alive.

ORDER	PLACE OF DELIVERY	MODE OF DELIVERY	THIRD STAGE	OUTCOME OF DELIVERY	PUERPERUM
1.	ORH	Normal SVD	Normal	2kg. male	Normal
2.	Home	Normal SVD	Normal	2.5kg. Female	Normal
3.	ORH	Normal SVD	Normal	2.5kg.	Normal
4.	ORH	Normal SVD	Normal	3kg. Female	Normal
5.	Home	Normal SVD	Normal	3kg. Male	Normal
6.	C U R R E N T S				

Gynaecological History:

She had menarche at 15 years followed by regular normal flow menstrual periods every 28-30 days and lasting 3 days. There was no history of gynaecological operations or vaginal discharge. Her last normal menstrual periods started on 30/12/81 and so her expected date of delivery was 7/10/82. She had not been on contraceptives.

Medical and Surgical History:

There was nothing relevant.

Social and Family History:

She was a housewife married to peasant. She never attended school. She did not drink alcohol or smoke cigarettes.

Examination on Admission:

The patient was anxious, pale but afebrile. She had cold clammy extremities with cold sweat on the face and hands. She was moderately dyspnoeic.

Cardiovascular and Respiratory Systems:

The pulse rate was 120/minute regular but poor volume. Her blood pressure was 50/30mm mercury. The heart sounds were normal. There was a haemic murmur best heard at the apex. The heart size was normal. The breath sounds were vesicular and there were no chest crepitations.

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Abdominal Examination:

The abdomen was irregularly distended with a depression centrally and bulging of the flanks. There was generalised tenderness with no guarding. The foetal parts were easily felt. No uterine contractions was palpated. The fetal head was palpated at the right iliac. fossa. No fetal heart sounds were heard. It was difficult to elicit fluid thrill or shifting dullness due to the poor condition of the patient.

Vaginal Examination:

Vaginal examination revealed normal vulva and vagina stained with blood. The cervix was 8cm dilated and the fetal shoulder could be palpated presenting. Blood was coming from the cervix and high up a tear could be palpated in the left lateral wall.

Diagnosis:

With the above history and findings a diagnosis of Rapture of uterus was made and a laparotomy was planned.

Immediate Management:

1) Blood was taken for grouping and Cross matching and the haemoglobin was determined.
2) An intravenous drip of normal saline was started using a wide plastic canula.

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3) Morphine 15mg. was given intravenously for pain.

4) The patient was prepared and transferred to theatre after signing consent for operation.

5) She was given intravenous ampicillin IG stat to be followed by 500mg. 6 hourly.

6) She was pre medicated with Atropine 0.6mg intramuscular.

7) A nasogastric Ryles tube was passed and suction was started.

By the time she was in theatre she had received two litres of Normal saline, the blood pressure was 110/70mm mercury and her haemoglobin was 6g/dl. She was blood group O Rh positive. Three units of blood was available and transfusion was started at the operating table.

Laparotomy: Repair of Uterus and Sterilisation:

Anaesthesia: (See O_4)

The abdomen was prepared and opened by a median lower abdominal incision as detailed in the introduction.

Findings:

The abdomen was full of meconium stained liquor mixed with blood. There was a 15cm long left lateral uterine tear extending to the broad ligament. The foetus was lying partly in the uterus and partly outside in the peritoneal cavity. The uterine vessels were intact. The tubes and ovaries were normal.

Haemostasis and Repair:

Pus swab for culture and sensitivity was obtained from the meconium stained peritoneal fluid. The edges of the tear were secured with Green Armytage clamps to achieve haemostasis: The dead baby 3.5kg. non-macerated delivered after the cord had been divided in t between two clamps. The placenta was delivered by a controlled cord traction after ergometrine 0.25mg had been given intravenously. All fluid in the peritoneum was sucked off and the intestines were packed off with two large gauze packs. The tear was then repaired in two layers using Chromic catgut number I after the uterine cavity had been cleaned to empty.

Warm normal saline was poured into the peritoneum, the intestines washed and the fluid sucked off 2 litres were used.

Sterilisation:

The fallopian tube was held up with dissecting forceps so that the bloodless area of the mesosalpinx could be seen. Two curved artery forceps were placed over the fallopian tubes 1 inch part.

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Using chromic catgut number 2 a ligature was placed around the fallopian tube enclosed in the clamps. The loop of the tube distal to the clamps and held up with the dissecting forceps was excised and the clamps were removed. A similar procedure was done on the opposite side. The cut ends were checked for bleeding and there was none. The abdomen was closed in layers after the gauze count had been pronounced correct. The patient had received 750ml. of blood during the operation. Her blood pressure was 110/70mm mercury and she did not look pale.

Post Operative Management:

1) She was to continue with intravenous fluids 5% dextrose 3L in 24 hours.
2) Blood Pressure and pulse were to be monitored ½ hourly till she was awake then hourly for 24 hours.
3) Urine output was recorded hourly
4) Pethidine 100mg. was authorised for pain as required.
5) She was given ampicillin 500mg. 6 hourly for 7 days.
6) Temperature was monitored 4 hourly.

The patient w did not develope a temperature and her urine output was 2000ml. after 24 hours.

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She had received 3000ml of Dextrose. Her pulse and Blood pressure remained at 70 - 80/minute and 110/70mm mercury respectively and the chest was clear throughout. She did not develope abdominal distension and she had bowel sounds and flatus after the first 48 hours. She started oral fluids and was up and about by the 3rd day post operative. Culture results were sterile. Her stitches were removed on the 8th day and the wound was well healed. She was discharged on the 14th day in good condition with a hemoglobin of 12g/dl.

She was seen six weeks later in the postnatal clinic. She was in good health with no vaginal bleeding or discharge. She had no abdominal tenderness. The uterus was normal size and there were no abnormal pelvic findings. Her hemoglobin was 13g/dl. She was educated on the circumstances that led to her catastrophy.

COMMENTS:

Rapture of the uterus is a fatal obstetric emergency that threatens both fetal life and maternal life. Although trauma to the uterus may cause a rapture, obstructed labour has been said to be the commonest cause in Africa (3).

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Others (2) have put previous caesarean scar as the commonest cause. Cases have been described of spontenous rapture where neither trauma nor previous scar or obstructed labour was present (5) (2). The aetiology of such rapture is largely unknown but this type of spontenous rapture has been shown to be the most catastrophic (2) (4).

This case presented with classical signs of rapture i.e. shock, continuous abdominal pain caesation of fetal heart and alteration of abdominal contours. In general it has been shown that 1/3 of cases of raptured uteri do not present with typical signs (1). Obstructed labour due to malpresentation could have been avoided if the patient had attended antenatal care well. Had she reported for delivery early in labour caesarean section might have saved her baby. Diagnosis was not difficult. She had no history of taking herbal medicine which have been implicated by others (1) and there was no history of trauma. Malpresentation was evident as the foetal head was lying in the left iliac fossa. Whether this was the cause or the result of raptured uterus it is not possible to tell.

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The management of such cases consist of resuscitation and immediate surgery. The correct procedure is said to be that which is shortest and produces least shock. (3) The operation of choice will depend on the skill of the surgeon, extent of rapture, and the condition of the patient (1) as well as her desire to preserve fertility (2). Most people agree that laparatomy does not have to wait for correction of shock (5) (3). In this patient preparation for theatre and laparatomy were done immediately.

Repair of uterus and sterilization have been recommended (6) and were the procedure of choice in this patient who was parous and not keen to have more children. It was an easier and shorter procedure than the alternative total hysterectomy which is recommended by others (6) (7).

Rapture of the uterus is preventable in most cases. Obstructed labour should not occur where maternity services are well organised and where the women are well motivated. This patient's failure to utilise existing antenatal and delivery services is probably due to ignorance which will improve with improvement in the general socio-economic standard.

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There will however be cases of spontenous rapture which are not preventable (2) (5) until their actiology is known. In the meantime efforts should be made to eliminate obstructed labour, high forceps delivery, fundal pressure and injudicious internal version and unsupervised oxytocin.

REFERENCES:

1) P. J. Armon: Rapture of the Uterus in Malawi and Tanzania.
East Afr. Med. J. 54: (9): 462, 1977.

2) Schrinsky D. C. and Benson R. C.
Rapture of the Pregnant Uterus: A review
Obstet. and Gynaec. Surv. 33: (4): 217, 1978.

3) Lawson J. B. and Stewart D. B.
Obstetrics and Gynaecology in the tropics
Edward Arnold - London Pg. 203, 1967.

4) Meredith A. S. Raptured uteri at the woman hospital. Am.J. Obstet.Gynaec. 70: 84,1955.

5) Boulle P. and Crichton D.
Rapture of the Unscarred uterus
Lancet 1: 360: 1964

6) Keifer W. S.: Rapture of the Uterus
Am. J. Obstet. Gynaec. 89: 335, 1964.

7) Farrell P. J.: Rapture of the Uterus
Am. J. Obstet. Gynaec. 97: 332, 1967

8) Ries K.J. and Middleton E. B.
Rapture of Septate Uterus due to Placenta percreta. Obstet. Gynaec. 39: 705, 1972.

COMMUNITY OBSTETRICS

FOOD HABITS AMONG PREGNANT AND LACTATING MOTHERS IN A MIXED TRIBAL POPULATION OF MOSHI-RURAL JAN-FEB 82:

SUMMARY:

The food intake and food habits of 190 pregnant and lactating mothers have been analysed. Carbohydrates were eaten by all in all meals. Only 2.6% of women had not had a protein meal in the last six meals while 74% had three or more protein meals. There is a general lack of concern for nutrition in pregnancy while there is always a ritual or taboo for the post delivery meal in all tribes. Food availability and cost were found to be the main determinants of food intake in pregnancy and lactation.

INTRODUCTION:

The growing foetus in utero depends entirely on nutritional supply from the mother. It has been suggested that most cases of intrauterine growth retardation are due to maternal malnutrition (1). Retarded fetal growth was reported as an effect of the 1944 - 45 famine in Holland (2) Nutrition during pregnancy is very likely to have an effects on birth weight and birth weight has been shown to rise with increase in maternal calorie intake in pregnancy irrespective of maternal age.

parity, interval since last birth, length of gestation illness during pregnancy or sex of the child.

A foetus rendered small for dates intrauterine faces the risk of intrauterine death and if born alive its ultimate mental integrity and physical development may be in doubt (1). Apart from the immediate effects on the newborn the long term effects of intrauterine malnutrition especially when combined with childhood starvation have been said to lead to small mothers who may have small pelvises. Cephalo-pelvic disproportion has been associated with maternal malnutrition both during foetal life and as an infant. The food habits in Tanzania have been studied only in a few tribes and the factors governing food intake in pregnancy and lactation have not been studied.

It was the purpose of this study to outline what pregnant women in a mixed tribal population eat and why. The main determinants of what food is eaten will be identified and a discussion of the effects of any taboos or other factors on feeding habits will be presented.

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Materials and Methods:

The villages surveyed are situated on the slopes of Mount Kilimanjaro 25k.m. from Moshi Town. It is a permanently dry area with only short rains once a year. Most of the agricultural work depends on these short rains. The main crops grown on these area are maize and beans. No cash crops are grown by the people. There is however a large sugar-cane plantation thriving under irrigation. Most of the population studied work in the plantation as unskilled or semiskilled workers earning the minimum salary of 600 Tanzania Shillings per month.

They depend on food supplies from the Moshi Town market but also depend on some local food production mostly maize and vegetables. There is a constant supply of fish from Nyumba ya Mungu Dam and this forms the cheapest form of animal protein (a kg. of fish cost 15/= sh. as compared to a kg. of beef 25 shs). Most of the women are unemployed except during the rainy season when they go maize planting.

The population is dependent on the company hospital for their health care. The hospital offers curative and preventive services. There is a maternal and child Welfare clinic whose staff visit the villages once a week offering antenatal care, family planning, health education and other services.

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Four villages out of twenty were chosen randomly by using simple random sampling. They were assigned numbers 1 - 20 and statistical tables with random numbers were used to draw out the four villages (7). The total population was 10,800 and contained 36 different tribes. One hundred and ninety women were interviewed and assuming that 20% of the population were women in the reproductive age (8) we have a coverage of 8.7%. Out of these 76 women were pregnant and 114 were lactating.

A Pre-tested questionaire with forty four questions covering social status of the patients and listing the number of meals, the type of food eaten in the last three days and covering the taboos and customes governing food intake during pregnancy and lactation was used. The questions were made in English but were asked in Swahili by the author himself.

For the purpose of this study, the foods were grouped in two:- Protein and Carbohydrates. Group 'A' below were regarded as carbohydrates. While group B were regarded as Proteins.

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GROUP A:	GROUP B:
Maize meal	Beans
Bananas	Peas
Rice	Milk
Potatoes	Fish
	Chicken
	Meat.

A house to house visit was made but all women could not be covered so that those not seen were followed up in the maternal and child welfare clinic. A total of 12 visits were made to the four villages. All women interviewed were asked to recall what they had eaten the previous six meals. A counter check on this was made by listing the foods commonly eaten and asking how many times they had actually eaten each of the food. Where there was a discrepancy the exercise was repeated and they both agreed. An effort was made to extract the true information.

Those asked in private seemed to provide false information. They actually recited what they had been taught at the M.C.H. clinic but when they were re-asked in public they provided the correct information after hearing everybody else talking freely.

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It was as if in privacy the women thought the interviewer had come to check whether they were implimenting the MCH lessons.

Out of the sample 180 women were asked why they ate the type of meals they had stated. They were asked to state whether it was due to custom, financial reasons, availability in the market or just a choice due to appetite. They were then asked what was recommended in their tribe for the pregnant woman and for the post delivery period. All of them were asked about their appetite during the previous or current pregnancy. Any taboos governing food intake during pregnancy and lactation were listed and the reason for such taboos were looked for. The women were asked whether the meals they had eaten were only meant for them or for the family.

Results:

Most of the women interviewed said that they ate something in between meals. This was either a cup of tea, porridge or a fruit. The main meal for all of them corresponded to the family's meal-time and was the same.

The number of meals per day eaten by the families interviewed is shown in table 1.98.4% of the women interviewed had two or three meals per day. Most of the 1.6% who had only one meal per day blamed appetite and pregnancy discomfort for the poor intake.

The number of meals containing protein is shown in Table II (see above for definition of protein food). This was obtained from the last six meals eaten by the mother. More than 87% of the mothers had two or more meals with protein. 12% of the mothers had either none or only one protein meal out of six.

TABLE I FREQUENCY OF MEALS PER DAY:

NUMBER OF MEALS	NUMBER OF WOMEN	%
1	3	1.58
2	89	47%
3	96	50.5
3	2	1.05
T O T A L	190	100

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TABLE II PROTEIN CONTAINING MEALS OUT OF SIX :

NUMBER OF MEALS WITH PROTEIN	NUMBER OF WOMEN WHO ATE	%
0	5	2.6
1	19	10
2	26	13.7
3	140	73.7
T O T A L	190	100

Table III shows the number of animal protein meals eaten out of the last six meals. These were mainly fish and beef but a few had eaten chicken and some drank milk. Nobody had eaten eggs. About 2/3 of the families had 2 - 3 meals with animal protein. 10% had no animal protein in all six meals and about 1/4 of the families had only one.

The number of meals eaten without protein as defined above is shown in table IV. Out of the 190 families 66.3% always had protein with every meal. About 7.4% of the women had one or two meals without protein and 26.3% had three or more meals without protein.

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All meals eaten contained carbohydrates in large quantities so that either stiff porridge, rice, potatoes or bananas would be eaten with either fish, beans or vegetables. The variation was mainly in the vegetable intake and protein intake.

The reason for the choice of what type of food in terms of protein or vegetables was to be eaten is shown in tableV.It will be evident that availability of the food in the market was the single most important factor governing the type of meals eaten. The appetite of the women occupied a third position and taboos and customs was last.

There was general lack of concern for nutrition during pregnancy in all tribes surveyed except among the Masai tribe. The pregnant women were left to eat the normal diet during pregnancy. None of them ate anything special because they were pregnant and the meals they ate were meant for the whole family.

TABLE III NUMBER OF MEALS WITH ANIMAL PROTEIN

(OUT OF SIX)

NUMBER OF MEALS	NUMBER OF WOMEN	%
0	20	10.5
1	46	24
2	70	37.1
3	54	28.4
T O T A L	190	100

TABLE IV FREQUENCY OF MEALS WITHOUT PROTEIN:

NUMBER OF MEALS	NUMBER OF WOMEN	%
0	126	66.3
1	7	3.7
2	7	3.7
3	50	26.3
T		

TABLE V PRIMARY REASON GIVEN FOR THE CHOICE OF FOOD BY FIRST MENTION:

REASON	NUMBER OF WOMEN:	%
Availability in the market	98	51.6
Cheap to buy	50	26.3
Good Appetite for it	12	6.3
Customs and taboos	20	10.5
Not asked	10	5.3

The Masais restricted milk meat and blood during pregnancy giving a reason that the foetus may be too big if these foods are eaten so that labour will be difficult.

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Instead they allowed bananas beans and vegetables and the like. Most of the women interviewed admitted that they did not keep the rule because of experience from other women of other tribes.

Most of the tribes surveyed had some rule on diet of a woman after delivery. The rules varied from tribe to tribe. The duration of the rule varied., either with the economic status of the family or with the reasons for that rule. Where the reason was due to a supposed pathology of delivery. (i.e.) the abdomen not being ready for certain foods) then the duration of the rule depended on when they thought the woman was well. The rules and reasons for various tribes are listed in table VI.

The rules were strongest among Northern tribes i.e. The Masais, Waarusha and Wachagga where together with complete rest from work, high protein diet, high fluid intake, No vegetables and no hard foods was the rule. The Wasafwa and Wamarira seemed to have no rule on what to eat or not to eat, after delivery. Most ate any available food after delivery.

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In contrast to the Maasai and Wachagga, the Wakinga of the South have a funny habit. Out of the two women interviewed both of them said delivery was a dirty affair and so the tradition was to isolate the women and feed her on left-overs until she was considered clean. The duration of such a rule depended on when the woman went back to normal work. She usually went back to work after seven days unless she had complications.

Pregnancy upsets and lack of appetite affected dietary habits but mostly in the first twelve weeks. Most of the women interviewed admitted to having normal appetite during the latter half of the gestational period.

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TABLE VI PRESCRIBED EATING HABITS AFTER DELIVERY:

HABIT	REASON	TRIBES EXAMPLES	DURATION
Soft foods soup	To prevent Constipation Abdomen very soft.	Wapare Wasambaa Wagweno	2-3 Weeks
Maize Porridge with pepper	To cure the damage Abdomen	Wadigo Wabondei	24 hours
Millet Drink with other soft foods	To promote milk production	Wanyaturu Warangi Wagogo	2-3 months
Anything except vegetable	Vegetables bed for Abdomen.	Wanyamwezi Wafipa Wakurya	6 weeks
No hard ford No beans No vegetables. Meat, soup, milk blood and fluids.	To Promote Lactation To promote Abdominal healing. Abdomen too delicate	Wamasai Waarusha Wachagga	2-3 months

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D I S C U S S I O N :

Studies on nutrition in Pregnancy have shown that maternal size reflects nutritional status during pregnancy and that improvement in maternal diet during pregnancy favourably influences both foetal growth and developmental progress after birth. (9). It has been shown that among undernourished populations the mothers were significantly shorter, thinner and lighter that among the more priviledged and so it has been postulated that inadequate diet during pregnancy, and child-hood undernutrition are responsible for this. It is also known from epidemiological studies that maternal caloric & malnutrition during pregnancy is associated with smaller babies and that simple dietary supplimentation has been shown to improve birth weight (10).

The dietary intake in the population studied shows an adequate carbohydrate and protein intake. Most people questioned had a carbohydrate meal at least twice a day. Only 3% had one meal per day. Although more than 73% of the people had 3 or more meals with protein (out of six meals), in only 28% of them was this of animal protein origin. This is probably because animal protein is more costly compared to vegetable protein.

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All the same the high frequency of meals containing high protein food may reflect the effect of the health education program going on in this area. There was a weekly talk on nutrition by the MCH staff to the mothers who attended the clinic.

It has been shown elsewhere that health education can achieve lasting changed in diet behaviour on a community level. (11) To be able to weigh the actual benefits of the health education one need to exactly measure the amount of calorie and protein intake in a controlled study.

The other factors which come out of this study is the fact that availability of the food in the market was the most important factor mentioned as determining what was to be eaten. This was followed by the cost of the food. It has been stated elsewhere that food availability and economic limitations in various countries apply to pregnant women as well as to other members of the community and that there is a tendency for the pregnant woman to continue eating her usual diet during pregnancy. This was exactly the case here in most tribes except the Masais who limited high protein diet to avoid a big baby.

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Other studies in this country confirm the same about specific food intake (5). It is understood that some alteration in the usual diet may result from appetite, tradition or education. In this case there was no proof that any of these was an important factor. Tradition in particular did not prove an important factor when considering food intake during pregnancy.

The level of concern for the nutrition of the women after delivery has been documented in other studied (5) but the reason for such contrast with the lack of concern on nutrition during pregnancy has not been investigated.

Most tribes tend to focus attention on the womb from which the baby comes and associate it with the stomach to which the food goes. Therefore warm soft foods are supposed to be better than hard cold foods. This was the case in most tribes. The later are supposed to delay healing of the womb while the former accelerate it. Also high fluids and protein intake are supposed to promote milk production for the newborn while vegetables, hard foods and vegetable protein do not encourage milk production.

The food habits after delivery were also modified depending on availability and cost. Thus banana - meat dish was eaten as a post delivery meal even in those tribes whose tradition was to eat thin grual with pepper.

Conclusions and Recomendations:

The problem of food habits of pregnant and lactating mothers is a complex one. Supplimentary feeding programs and distribution of nutrient suppliment aimed at pregnant and lactating mothers are interventions recommended but are short term solutions. Indirect nutritional interventions are said to have a wider ramification (12). Certainly the improvement of availability of food in terms of improved agricultural production and improved socio-economic status - and hence the purchasing power of the people are more permanent measures which will have a lasting effect.

It is recommended that apart from improving the agricultural production in this area Health education should be intensified so that the available foods may be used in combinations which provide maximum benefit. Secondly the food supply system should be improved so that the foods not available during a certain season may be brought in from other parts of the country. Thirdly and most important there is a need to do further studies to measure exactly how much protein or calorie is taken by these pregnant women so that one may be able to assess the adequacy of the diet and plan for any improvement.

1. SCIENTIFIC BASIS OF OBSTETRICS AND GYNAECOLOGY:

1. 2nd Edition by Ronald R. MacDonald
Churchil Livingstone
Edinburgh London and New York 1978.

2. Smith C. A. Effects of maternal undernutrition upon the newborn infant in Holland (1944-1945)
Journal of Paediatrics 30: 229, 1947.

3) Rush D. Stein, Z Christakis G, Susser M,
Nutrition and Foetal Development
Ed: Winich M - New York 1974
John Willey and Sons

4) Habimht J.P. Yarbrough C, Letching A, Klein R.E.
Nutrition and Foetal Development
Ed. Winich M - New York 1974
John Willey and Sons

5) Maletnlema T. N. Mhombolege R, Ngowi G.E.
Family Food Consuption Surveys in Rural Tanzania
Tanzania Notes and Records 73, 43, 1974.

6) Maletnlema T. N. Bavu J. L.
Nutritional Studies in Pregnancy
Nutrition Newsleter
Human Nutrition Unit Dar Es Salaam.

7) R. A. Fishar and FYates
Statistical tables for Biological Agricultural and Medical Research.
Oliver & Boy & Edinburgh 1963.

8) Bralup,
Population Distribution by Age and Sex
National Demographic Survey 1973.

9) Delgado H, Lechtig A., Karbrough C, Mushin
K. S. & Evans TW
Nutrition Impacts on women throughout life with
emphasis on Reproduction
Hargestown M. J. Harper and Row 1977

10) Myron Winich Jo Anne Bressel and Elba C Velasco
Effects of Prenates Nutrition upon Pregnancy
Clinics in Obstetrics and Gynaecology 73, 184, 1973

11. Stephen P. Fortman, Paul T. Williams,
Stophen H. Hulley William L. Heskel and
John Farguhar
Effects of health education and dietary
behaviour The American Journal of Clinical
Nutrition 34 (10); 2030, 1981.

12. Virginia A Beal; Nutrition Studies in Pregnancy
Journal of American Dietahc' Association 58
(4), 312, 1971.

13. WHO Technical Report series 600: 1976
New Trends and Aprroaches in the delivery of
maternal and Child Care Health Services.

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LONG OBSTETRIC COMMENTARY:

PERINATAL MORTALITY IN MUHIMBILI MEDICAL CENTRE:

S U M M A R Y:

All perinatal deaths occuring in Muhimbili Medical Centre between 1st May 1982 and 30th October 1982 were analysed. The perinatal mortality rate was 53: 1000 births. Prematurity, antepartum haemorrhage and Trauma were the main causes of perinatal mortality. Most obstetrically avoidable deaths occuring during or after labour were due to trauma. Inappropriate level of care was found to be an important cause of perinatal mortality and occured in 80% of the deaths analysed. Avoidable maternal factors accounted for less than 20% of the cases. It should be possible to make major improvements in perinatal survival by improving the present obstetric care.

INTRODUCTION:

Perinatal mortality includes fetal deaths after 28 weeks of gestation and first week neonatal deaths. It is expressed per 1000 live and still births.

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It is a measure of the standard of obstetric care and the level of socio-economic development of a community. Where the community is rich and advanced in terms of education and income and where the obstetric care covers everybody the perinatal mortality is low, but where poverty exist and there is minimal obstetric care the perinatal mortality is high.

The perinatal mortality in Muhimbili Medical Centre is high (1) about 42.9/1000 births. Most of the deaths are ante-or intra-partum. It has been shown (2) that when only crude methods such as palpation of uterine fundus and auscultation of fetal heart rates are used antepartum deaths occur in a high percentage of cases and more than 50% of the intrauterine deaths have no congenital anomally and could be prevented had the risk been predicted. Like any other country a decrease in perinatal mortality can only be brought about by improvement in methods of monitoring pregnancy and labour and improvement in the social standards (3).

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Electronic fetal heart monitoring, the measurement of serial urinary oestriol levels and ultrasonic fetal measurement of the biparietal diameter are some of the modern methods that have been shown to be useful in fetal monitoring and reduces perinatal mortality (14) (15).

The use of ultrasound, electronic fetal heart monitoring and urinary oestriol measurements are not available for routine use in Muhimbili Medical Centre. However fetal movement count which has been shown to be useful in antenatal monitoring of fetal wellbeing (16) (17) (18) is currently used in high risk pregnancies. This is used to suppliment the other clinical methods used such as measurement of fundal height in relation to gestation as determined from the data of the last normal menstrual period, observation of progressive maternal weight increase during pregnancy and periodic auscultation of fetal heart rate by the fetoscope.

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The socio-economic status of the mother has been shown to be very important (4) (5). Given the economic constraints of Tanzania an improvement in the general social status is not likely soon. The high perinatal mortality in Muhimbili Medical Centre does not necessarily reflect poor obstetric care because like any other big obstetric unit it could reflect the effect of caring for a high percentage of high risk patients (3) and a much lower figure could reflect poor selection of patients. The Centre has a delivery rate of about 35 babies per day (1). There are 25 trained nurses midwives divided into three shifts per day. They handle a large percentage of the deliveries some of which are complicated. There is one consultant or specialist available for consultations daily. There is a resident doctor on duty who is often busy with operative deliveries and there is an intern constantly in the labour ward busy assessing progress of labour and reparing episiotomies.

With a delivery rate of 35 babies per day and since most of the women have risk factors needing intensive care, the labour ward staff is overloaded so that efficiency is often lowered. It is against this background that this study was done. The aim was to outline the major determinants of perinatal mortality and secondly to find out any avoidable factors. An avoidable death is regarded as one where given the circumstances prevailing the death should not have occured had the mother or the medical personnel taken a certain appropriate step. When the mother or the medical personnel knew what to do but could not do due to circumstances beyond their ability the death is regarded as unavoidable. It is realised that judgement is going to be subjective so that where doubt exist the case will be regarded as unavoidable.

An organised attack on perinatal death must begin with accurate information about those factors associated with death as well as specific causes.

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One of the things an obstetric unit in a developing country, afflicted with lack of facilities and adequate staff, could do is to tackle the avoidable deaths i.e. those deaths that can be avoided by reorganising motivating or educating the existing staff and using the available facilities. It ishoped that the findings of this study will give some light in this direction so that efforts can be made to reduce the high perinatal mortality.

MATERIALS AND METHODS:

All perinatal deaths occuring in Muhimbili Medical Centre between 1st May and 31st October 1982 were included. The labour records and neonatal records were scrutinised and information regarding weight, parity age and type of perinatal death whether still birth or neonatal death was obtained. The cause of death was obtained from the Staff concerned, the labour record or death certificate and where the mother was available she was interrogated in an attempt to find out the circumstance surrounding the death of the baby. No postmortems were done in the fetuses. The causes of death were grouped and classified using the clinical classification used in the Scottish perinatal survey (7).

202 perinatal deaths were chosen using systematic random sampling by taking every alternate case where records and mother were available. These were examined in detail to determine if there were any avoidable factors. Where the mother had been discharged or the records were not available the case was dropped from selection. The antenatal records were examined to find out if there were any risk factors that had been ignored. The mothers were questioned on the details of labour and pregnancy and the labour records were examined for duration, progress of labour and mode of delivery and outcome of pregnancy. Where delivery of a complicated case such as twin or breech was done by a nontrained or junior person leading to perinatal death the case was classified as avoidable. The avoidable deaths were grouped into obstetric, pediatric and maternal - social as described elsewhere (7).

RESULTS:

During the period of study there were 13,450 deliveries and a total of 716 perinatal deaths giving a perinatal mortality rate of 53.2/1000 births. The parity distribution of the deaths is shown in table 1.

67.7% of the mortality occured in para 0 and Para I. 76% of the para I patient had a bad obstetric history with previous perinatal catastrophy, infertility or abortions.

Table II shows the categories of perinatal deaths 27.2% were macerated still births most of them premature. 39.8% were fresh still births. 60% of the fresh still birth had a clearly defined precipitating obstetric complication such as haemorrhage but 38% were due to birth trauma resulting from poor management.

TABLE I:

PARITY DISTRIBUTION OF MOTHER WHO HAD PERINATAL DEATHS:

PARITY	NUMBER	%
0	235	32.8
1	250	34.9
2	126	17.6
3	105	14.7
	716	100

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TABLE II:

CLASSIFICATION OF PERINATAL DEATHS

TYPE	NUMBER	%
Macerated still birth	195	27.2
Fresh still births	285	39.8
1st week Neonatal deaths	236	33.
T O T A L.	716	100

The major causes of Perinatal mortality are shown in Table III. 658 cases were available for analysis. Prematurity stands out as a major cause of perinatal deaths. There is a disquieting number of deaths due to birth trauma. These were either following prolonged labour, wrong use of the vacuum extractor to overcome disproportion or delivery of a complicated case by inexperienced persons. Antepartum haemorrhage was an important cause of perinatal mortality. 53% of it was abruptio Placenta but 20% were of placenta Praevia and 27% of the undertermined type.

TABLE III:

MAJOR CAUSES OF PERINATAL MORTALITY:

CAUSE	NUMBER:
1) Low birth weight 2500g	
No maternal complication	230
2) Normal birth weight 2500g	
No maternal complication	129

3) Birth Trauma	108
4) Pre-eclampsia	41
5) Antepartum haemorrhage	109
6) Maternal disease existing before pregnancy	32
7) Fetal abnormality	7
8) Others	2

Out of the 202 cases selected for study 64% had obvious avoidable factors which contributed directly to the death of the foetus or neonate. Table IV shows the number of avoidable factors in the cases chosen. 57 out of 202 had more than one avoidable factor. The avoidable obstetric factors are listed in table V. Inappropriate level of care stands out as the single most important avoidable factor. This is closely followed by failure to diagnose a risk factor. Inappropriate level of care was mostly when a less qualified staff undertook a procedure which should have been done by a more qualified staff when the latter was actually available for consultation. There were case of breech delivery, twin deliveries, resuscitation in the labour ward done by nursing assistants when actually experienced midwives or even doctors were present.

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Vacuum extraction in clearly obstructed labour were done by junior doctors when senior ones could have been consulted to make proper decisions. There were also cases of big breech, twins or disproportion which were not diagnosed until it was too late.

TABLE IV:

THE NUMBER OF AVOIDABLE FACTORS:

Number of avoidable factor	Number of Patients
0	73
1	72
2	41
3	16
	202

TABLE V:

AVOIDABLE OBSTETRIC FACTORS:

Avoidable factor	Number of Occurances
1) Inappropriate level of Care	101
2) Failure to diagnose risk factor	81
3) Risk factor diagnosed but appropriate action not taken.	45
4) Risk factor diagnosed but wrong action taken	22
5) Miscellenous	13

N.B:

The number adds up more than 129 because some had more than one risk factor and therefore appearing several times.

The avoidable pediatric factors could not be analysed due to the factor that there was no record of the times when procedures were done and admission diagnosis interval could not be found.

Table VI shows the avoidable maternal factors. Failure to attend antenatal care was the main problem although there were a few unmarried jobless patients who did not care about the pregnancy and three patients who had hypertension in pregnancy, refused admission and came in labour with intra-uterine fetal death at term.

TABLE VI:

AVOIDABLE MATERNAL FACTORS:

Avoidable factor	Number of Partients
1) Failure to attend antenatal care	32
2) Failure to comply to Professional advice	3
3) Unsupported mother	2
4) Miscellenous	1

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DISCUSSION:

Perinatal mortality reflects the socio-economic standard and the level of obstetric care of the community (13). The high perinatal mortality of 53. Compared to 42.9 reported in 1979/80 does not reflect a worsening of the situation. The increase is only apparent and is due to the opening of maternity wards in Temeke and Kinondoni. These wards which are not part of Muhimbili Medical Centre have reduced the load of normal deliveries in Ocean Road hospital while the high risk cases delivered at Muhimbili have not dropped. Thus while the total deliveries might have dropped the perinatal deaths remained the same and infact increased a little.

In the more developed countries Prematurity and congenital malformations are top causes of perinatal deaths and very few deaths occur during labour (8). In this series birth trauma at delivery and haemorrhage were a close second to prematurity and the percentage dying during labour as reflected by the fresh still birth is higher than those dying prior to labour as reflected by the macerated still births.

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These facts by themselves ought to raise a lot of concern because trauma at delivery can be prevented, antepartum haemorrhage may be managed and decisions on when and how to deliver the high risk pregnant patients should be made before they reach labour. An improvement in intrapartum surveillance will lead to fewer intrapartum deaths. Potter et al (9) has shown that with improvement in obstetric care trauma can be replaced by congenital malformation as a cause of perinatal mortality. After major reductions have been made in conditions associated with labour and delivery attention can then be directed to detection and management of congenital malformations and prevention of premature labour.

What is more disturbing is that 64% of the perinatal deaths were avoidable. In developing countries 59% of the deaths have been reported as avoidable (10) this seems to agree with the figure in this series but it must be pointed out that the criteria for avoidability between the two is different.

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Although Henrics (4) has stated that the challenge to improve perinatal survival rests with the patient and her community and not with the physician, the findings of this study points to the opposite. The number of deaths due to trauma and the amount of fresh still births call for improved antepartum and intrapartum care. Weinraub (11) et al has shown that there is a significant reduction in perinatal mortality in monitored patients in labour when compared to those not monitored and Westin (2) has shown that antenatal vigilance with the use of gravidogram reduces perinatal mortality and proper handling of deliveries has been sited as one factor that can reduce perinatal mortality (6).

What is particularly disturbing is the fact that a lot of perinatal deaths occured in the hands of less qualified persons when more qualified ones were available. If the perinatal mortality is to be lowered then efforts must be made such that the most competent person delivers or manages the most at risk cases. It has been shown that it is possible to eliminate all avoidable factors of Perinatal mortality (12).

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CONCLUSIONS AND RECOMENDATIONS:

The perinatal mortality in Muhimbili Medical Centre is largely preventable. Improvements in recognition of risk factors coupled with having a plan for every risk pregnancy should lower the mortality. The most competent staff available should handle the patients with the highest risk of perinatal deaths. An extra resident permanently in the labour ward should prove invaluable.

R E F E R E N C E S:

1) Kaisi M. Perinatal Mortality - Annula Report of Department of Obstetrics and Gynaecology 1979/80 Edited by L. A. R. Mtimavalye.

2) Westin B: Gravidogram and Foetal growth Acta Obstet. Gynaecol. Scand. 56: 273, 1977.

3) Lindgren L: Perinatal mortality and differing socio-economic status: Acta Obstet.Gynaecol. Scand 60, 21, 1981.

4) Hericks C: Delivery patterns and reproductive efficiency among groups of differing socio-economic status and Ethnic origins Am.J. Obstet. Gynaecol. 97: 608, 1967.

5) D. Baird and A.M. Thomson - Perinatal Problems Land S. Livingstone Ltd., 1969.

...../ 172.

6) Knutzen V. K. Baillie P, Malan A. F.
Clinical classification of Perinatal deaths.
South Afr. Med. J. 49: 1434, 1975.

7) Mcllwaine A. M. Howart R. C. F. Dunn F and MacNaughton M. C.
The Scottish Perinatal Mortality Survey
Brit. Med. J. 1979, ii 1103 - 1106.

8) Knutzen V. K. Sher G: The major determinants of perinatal mortality in a large metropolitan hospital J. Reprod. Medicine 27 No. 7, 395, 1982.

9) Potter E and Davis M. E.
Perinatal mortality
Am. J. Obstet. Gynaecol. 105: 335, 1969.

10. Pharoah P. O. D: Confidential inquiry into perinatal deaths in Mersey Region
Lancet 1: 491, 1982.

11) Weinraub Z., Caspi E, Brook 1, Rehman P., Bukovsky 1 and Sehreyer P: Perinatal outcome in monitored and unmonitored high risk deliveries. Israel J. Med. Sc. 14: 249, 1978.

12) I Donald: Practicle Obstetrics Problems
Llyoid Luke Ltd., London 1979.

...../173

13) Wallace H. M.: Factors associated with Perinatal mortality and morbidity Clinic Obstet. Gynaec. 13, 13 1970.

14) Paul R. H. Evaluation of antepartum fetal Wellbeing using Non stress test clinics in Perinatology.
Edited by Petrie R. H.
W. B. Saunders Company - London.

15) Paul R. H.
Perinatal mortality at LAC/usc Medical Centre
Proceedings of the neonatal Intensive care Conference: Ed. J. Dancis
John Willey and Sons - New York.

16) Mathews D.D. Maternal assessment of fetal activity in small for date. infants obstet. Gynaecol. 45: 488, 1975.

17) Leader L. R. Baillie P, Van Schalkwyk D.J. Fetal movements and fetal outcome Obstet. Gynaecol. 57: 431, 1981.

18) Neldam S; Fetal movements as an indicator of fetal outcome the Lancet: June 7:1222, 1980.

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TROPHOBLASTIC DISEASE

HYDATIDFORM - MOLE

SPONTENOUS ABORTION - DIGITAL EVACUATION

Name: Mrs. Z. W. Age: 38

Address: Temeke Dar es Salaam

Date of Admission: 18.7.81

Date of Delivery: 21.7.81

Date of Discharge: 11.8.81

S U M M A R Y:

Mrs. Z.W. was admitted to Muhimbili Gynaecological Ward with a history of amenorrhoea for six months and complaining of recurrent vaginal bleeding and lower abdominal pain for three days. She had not felt foetal movements but had excessive nausea and vomitting.

She was found to be pale with mild abdominal pain. Her abdomen revealed a fundus of 30 weeks gestation. The foetal parts were not palpable and the foetal heart sounds were not heard. The pregnancy test was positive.

She Spontenously aborted a hydatidiform mole which was confirmed histologically. She had digital evacuation of the uterus and bleeding stopped over the next two days. Subsequent follow up has revealed no complications.

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History of the Present Illness:

The patient who had six months amenorrhoea was admitted because she developed vaginal bleeding and low abdominal pain. The bleeding was profuse without clots. She stated that about one cup of blood had been lost and she had soiled her clothes with blood. Over the last three days she was changing sanitary pads four times per day. She had not fainted but felt dizzy. She had not seen products of conception. She admitted experiencing nausea and vomiting excessively but this did not necessitate admission to hospital. She had not felt foetal movements.

Together with the vaginal bleeding she was having low abdominal pain which was mainly sub-umbilical. The pain was dull but continuous with episodes of accentuction. The pain was associated with low backpain which was mainly present during the maximum lower abdominal pain period. She had not started antenatal clinic.

Previous Gynaecological History:

She had menarche at 13 years followed by regular normal flow menstrual cycles lasting 4 - 5 days every 30 days. She had no history of vaginal discharge or abortion. Her last normal menstrual period started on 15/1/81. There was no prior history of inter menstrual bleeding or use of contraceptives.

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Obstetric History:

She was para one which was normal pregnancy and delivery three years previously.

Past medical and Surgical History:

There was nothing significant.

Social and Family History:

She was an unmarried factory worker who did not smoke or drink alcohol.

Physical Examination:

She was an ill looking woman who was pale but not dyspnoeic or jaundiced. She had no peripheral oedema or generalised lymphoadenopathy.

Cardiovascular System.

The pulse rate was 72/minute regular and of normal volume. Her blood pressure was 120/70 mm mercury. The heart was normal size with normal sounds and without murmurs.

Respiratory System.

The Breath-sounds were normal. No crepitations were heard.

Abdominal Examination:

The abdomen was distended uniformly. No areas of tenderness were felt. The liver and spleen were not palpable. The renal areas were not tender.

The fundal height was 30 weeks gestation. No ballotment was possible and foetal parts were not felt. The foetal heart sounds were not heard.

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Vaginal Examination (see introduction)

The vulva and vagina were normal but stained with blood. The cervix was soft 2cm long and admitted one finger. No vesicles were seen. The uterus was enlarged to 30 weeks gestation and both ovaries were enlarged to the size of tennis balls.

Diagnoses

With the above history and examination findings a provisional diagnosis of Molar Pregnancy and differential diagnoses of Multiple pregnancy, wrong dates, Hydramnios with threatened abortion was made.

The following investigations were done and results obtained:-

Haemoglobin	6.9g/dl
Pregnancy Test	Positive
White cell Count	8000/cc
Plain abdominal X-ray	No foetal parts seen.

Urine for pregnancy test was positive to a dilution of 1:300.
Blood Group and Crossmatch was done for four units.

Spontenous abortion and digital evacuation:

The abdominal pain progressed and she had a Spontenous abortion 30 hours after admission. The products of conception consisted of a 1.2kg mass of vesicles matted together like bunches of grapes and grossly resembling hydatidform mole. She received three units of blood.

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She was given analgesia in the form of Pethidine 100mg intramuscularly and under sterile conditions the uterus was digitally evacuated as described for incomplete abortion (G2). Ergometrine 0.25mg was given intravenously and there was minimal bleeding thereafter. The aborted products were sent for histopathology.

Follow up:

Histology report described Avascular trophoblastic proliferation with swelling of the strom. The features were consistent with a diagnosis of Hydatidform mole. There were no features suggestive of malignant change.

The patient had a diagnostic curretage five days later and histological report showed no trophoblastic tissues. Pregnancy test 7 days postoperative was still positive but became negative 14 days post-operative. Twenty one days later the Pregnancy test was still negative and a chest x-ray showed no abnormality.

There was no vaginal bleeding from the 7th day postoperative. The uterus regressed to normal size and the ovaries were difficult to palpate by the 28th day. She was advised not to get pregnant for two years and was later put on oral contraceptives. She was to report monthly for six months for pregnancy test and chest-x-ray and later every three months for two years. For each visit she will have her history and physical examination reviewed, pregnancy test and chest x-ray repeated to detect any symptoms or signs of malignancy.

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DISCUSSION:

The diagnosis and treatment of molar pregnancy, early is of paramount importance because most malignant trophoblastic disease arise from hydatidform mole (1). It has been shown that the longer the patient has stayed with the metastatic disease the poorer the prognosis (2) This patient who had an amenorrhoea of six months presented with signs of threatened abortion. This is the commonest presenting way for molar pregnancy. Had the patient started antenatal care early then the diagnosis would have been suspected from a fundus enlarging faster than dates and lack of foetal movement, foetal heart rate and foetal parts on palpation. Definitive diagnosis could have been made earlier and treatment instituted. Diagnosis and evacuation of the uterus early is important because it is attended by less haemorrhage and sepsis. A big uterus is followed by more bleeding, is more difficult to evacuate thoroughly and will predispose to sepsis. Although molar pregnancy have a significant attendant morbidity of sepsis, and toxaemia usually 85% will enter remission with evacuation of the uterus only (3). The other 15% will have local or distant metastasis and most of these are choriocarcinoma which carry a mortality of 40% with surgical treatment even when the tumor is confined to the uterus.

This patient had a spontenous abortion of the mole as is the case in most cases (8). In fact approximately 50% of the cases are not suspected until the mole is expelled in part or whole (8).

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The use of Pregnancy test for follow up is not the best way of measuring Human Chorionic Gonadotrophin because it is often inaccurate in dilution and insensitive below 1000 u./24 hours urine (2). The best would have been serum Radioimmunoassay or the mouse uterine unit on urine (2) (4). These being unavailable in our centre pregnancy test was the only laboratory method.

Since observations showed that foetal death could be caused by antifolic acid (3) and that Human Chorionic Gonadotrophin reverted to normal in a patient being treated with methotrexate (7) and that antifolic acid were highly effective in the treatment of metastatic choriocarcinoma (6), some people advocate prophylactic chemotherapy along side evacuations. Considering the toxic effects of chemotherapy and that 85% of the patients with molar pregnancy will have spontenous remission with evacuation alone, this patient was monitored carefully to detect any sign of recurrance or persistent disease. It is the opinion of the writer that if the pregnancy test remains negative, the ovarian cysts regress and the uterine involution is normal without bleeding there is little justification for cytotoxic therapy.

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REFERENCES:

1. Donald I: Practicle Obstetrics Problems 1969.
Lloyd Luke Ltd., London.

2. Hammond C.B., Borchet L.G. Tyren L., Cressman W.T.
Baker R.T. Treatment of Metastatis Trophoblastic disease:-
Good and Poor Prognosis Am. J. Obstet. Gynaecology 115 451 1973.

3. Harmond C.B., Barker R.T.: Diagnosis and treatment of Trophoblastic disease: Obstet. Gynaecology 35: 132, 1970.

4. John C., Weed Jr., Hammond C.B.: Cerebral metastatic Choriocarcinoma Intensive therapy and Prognosis Obstetrics and Gynaecology 55: 89, 1980.

5. Thiersh J.B.: Therapeutic abortion with a folic acid antegonist by oral toute, Amer. J. Obstet. Gynaecology 63: 1298, 1952.

6. Li MC: Chemotherapy of Choriocarcinoma and related trophoblastic tumors, Ann. N.Y. Acad. Sci. 80, 280, 1959.

7. Li MC, Herx, R and Spencer D.B. Effect of methotrexate upon Choriocarcinoma and chorioadenoma Proc. Soc. Exp. Biol. Med. 93, 361, 1956.

8. Jeefcoate T.N.A. Principles of Gynaecology Pg. 282.
3rd ED. London Butterworths.

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INCOMPLETE ABORTION:

EVACUATION OF UTERUS BLOOD TRANSFUSION:

Name: Mrs. Z.M. Age: 22 Years G.3 p^2
Address: Kariakoo Dar es Salaam
Date: of Admission: 1.7.81
Date of Evacuation: 1.7.81
Date of Discharge: 4.7.81

S U M M A R Y:

Mrs. Z.M. was admitted to Muhimbili Gynaecological Ward with history of amenorrhoea of 8 weeks and complaining of lower abdominal pain for one day and profuse vaginal bleeding for one day. A vaginal examination revealed an open cervical os with products of conception protruding from it. The uterus was six weeks in size. Following removal of products from the os and uterus digitally the bleeding subsided. She had evacuation of the uterus done digitally and also using a big sharp currete. She received two units of blood transfusion and was discharged with oral haematinics.

History of the Present Illness

The patient who had an amenorrhoea of two months was admitted because she developed low abdominal pain followed by profuse vaginal bleeding twenty four hours before admission. There had not been history of fever and she denied interfering with the pregnancy.

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Previous Gynaecological History:

She had Menarche at 13 years followed by regular menstrual cycles every 28 days with normal bleeding lasting 3 days. There was no history of postcoital bleeding or vaginal discharge. Her last normal menstrual period started on 4.5.81. She had not used any contraceptive.

Obstetric History:

She was para 2. All were normal pregnancies and deliveries. The weight of the babies were 2.5kg. and 3 kg respectively.

Past Medical and Surgical History:

There was nothing relevant.

Social and Family History:

She was a housewife and her husband was a peasant. She neither smoked no drank alcohol. There was no family history of Diabetes Mellitus or hypertension.

Physical Examination:

She was a young woman in pain. She was afebrile but pale. She was not jaundiced and had no ankle oedema. Her pulse rate was 120/minute regular and of normal volume. The blood pressure was 100/60 mm. mercury. The cardiovascular Respiratory and central nervous systems were normal.

Abdominal Examination:

The abdomen was soft with slight tenderness in the suprapubic area. The renal angles were not tender. The liver and spleen were not palpable.

Vaginal Examination:

The vulva and vagina were normal with some blood clots in the vagina. The cervix was healthy looking on inspection and two centimeters dilated on palpation. There were products of conception protruding from the os. There was no tenderness of the abdomen on movement of the cervix. The uterus was six weeks pregnant and the adnexae were normal. The examining finger brought some placental tissue out.

Diagnosis:

With the above history and findings a diagnosis of incomplete abortion was made.

Immediate Management.

1) Blood was taken for grouping and Crossmatching two units and an intravenous drip of 5% Dextrose was set up. Blood Group was O.Rh Positive.
2) An urgent haemoglobin showed 9.0g/dL.
3) She was given 0.25mg ergometrine intravenously and prepared for evacuation of uterus.

Pre-Operative Preparation:

The patient was shaved in the perineum and consent was obtained for the procedure. She received atropine 0.6mg intramuscularly and pethidine 100mg. intramuscularly. She was transfused with two units of blood pre-operatively.

Anaesthesia:

For this procedure the patient was induced with Ketamine anaesthesia and maintained on inhalation anaesthesia 50:50 Nitrous oxide: oxygen.

Operative Procedure:

The patient was put on Lithotomy position cleaned with antiseptic and draped with sterile towels (as described in the introduction for vaginal operations.) The patients bladder was catheterised.

Vaginal examination showed normal vulva and vagina except for clots of blood in the vagina. The cervix was visualised by using sims speculum and the anterior lip of the cervix was grasped with vulselum forceps. An ovum forceps was used to remove the protruding products of conception from the cervical os. The Sims speculum and vulselum were removed and the index finger of the right hand was passed into the uterus while the left hand was applied on the anterior abdomen to steady the uterus.

The index finger in the uterus was used to scoop out the remaining products in the uterus. These were brought out. A large sharp currete was used to empty the uterus after the Sims speculum and vulselum had been re-applied. The currete was gently used starting at 7 O'clock and moving systematically clockwise till the whole uterus was curreted. Intravenous ergometrine 0.25mg was given. Thereafter there was minimal bleeding and the uterus was well contracted. The products were sent for histology.

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Post Operative Treatment.

Her pulse remained 76/minute with normal volume and the blood pressure was 110/80 mm. mercury throughout postoperative period. Both parameters were monitored ½ hourly for the first six hours.

The temperature was monitored 6 hourly and it remained 37° centigrade. The Haemoglobin was 11g/dl immediately post operative (as she had received blood) but became 10g/dl after 48 hours (due to haemodilution) She had one more unit of blood.

Discharge and follow up:

She was discharged after 72 hours. She had then no vaginal bleeding, fever or pain. The abdomen was soft and non tender and vaginal examination revealed a normal vagina and vulva, a closed normal cervix and a normal sized anteverted uterus. The adnexae were non tender. Her haemoglobin at discharge was 11g/dl and she was sent home with oral haematinics.

She was seen six weeks later when she had just finished her first postoperative menstrual period. She had no dysmenorrhoea. Her haemoglobin was 12g/dl and her pelvic organs were normal. The histology report was back and showed decidual and chorionic villi. She was discharged from the gynaecological clinic with advice on contraception.

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C O M M E N T S:

An incomplete abortion presenting with bleeding is a gynaecological emergency. Not only can the patient die of haemorrhagic shock but every passing minute invites sepsis which may kill the patient directly by septic shock or cause renal-cortical necrosis leading to renal failure. Neglected incomplete abortion may terminate the patients obstetric career by bloking the tubes and give her chronic pelvic infection with dysmenorrhoea and disturbed menstrual cycles. Prompt treatment is therefore very important.

It is often not easy to identify the cause of most spontenous abortions. It is however known that 15 - 20% of pregnancies terminate in spontenous abortion prior to 20th week of gestation (1). Many are known to be due to faulty development of the embryo due to chromosomal abberations.

In this patient there was no obvious cause. There was no history of fever or any other acute illness. Chromosomal studies were not done on the conceptus due to lack of facilities at the time. These could have been useful. The foetus aborted was not available for scrutiny for congenital malformations. There was therefore no cause for the abortion identified.

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The need for preoperative resuscitation cannot be overemphasized. A shocked patient with anaemia does not tolerate anaesthesia well (2). It is recommended that products of conception lying in the cervical os should be removed (3) in the initial examination. This may be enough to stop the haemorrhage and reduce the pain. General anaesthesia is prefered as it facilitates thoroughness and makes the patient more confortable. A sharp curette was used because a blunt one will require more force and increase the chance of uterine perforation.

REFERENCES:

1) Poland B.J. Miller J.R. Harris M. and Livingstone J.
Spontenous abortion.
Acta Obstetricia et Gynaecologia scandinavia Supp. 102-1981

2) Lawson S: Anaemia in Pregnancy
Obstetrics and Gynaecology in the Tropics.

3) Donald I: Abortion
Practicle Obstetrics Problems. 5th Ed.
Lloyd - Luke Ltd. London.

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EXTRA UTERINE PREGNANCY:

LAPARATOMY FOR RAPTURED TUBAL PREGNANCY

AUTOTRANSFUSSION:

Name: Miss B. M. Age 28 Years

Address: Ilala Dar Es Salaam.

Date of Admission 23.6.81

Date of Operation: 23.6.81

Date of Discharge: 2.7.81

SUMMARY:

Miss B. M. was admitted to Muhimbili gynaecological ward with amenorrhoea of two months and complaining of severe abdominal pain for one day. She also had slight vaginal bleeding. She was found to be pale and in shock but apyrexic. Abdominal examination revealed a diffusely tender abdomen more in the left lower side. She had evidence of intraperitoneal fluid. Vaginal examination revealed a closed cervix which was tender on movement. The uterus and adnexae could not be palpated well due to tenderness. A diagnosis of raptured ectopic pregnancy was made. Laparatomy confirmed the diagnosis. A left salpingoophorectomy was done and blood autotrans-fussion performed. The recovery was uneventful.

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History of the Present Illness:

The patient who had an amenorrhoea of two months was admitted because she developed an acute abdomen twelve hours prior to admission. Before the pain she had experienced dizziness and fainting attacks for one day but she had continued with her work normally. There was no history of fever. The abdominal pain caused a pricking sensation in the shoulders when she lied down. She complained of palpitations and felt very weak. There had been only slight menstrual like bleeding.

Past Gynaecological History:

She had menarche at 14 years which was followed by regular periods every 28 days with moderate bleeding lasting 4 days. She experienced dysmenorrhoea which started with and ended after menstrual periods. She denied history of pelvic infection or vaginal discharge but admitted that she took antibiotics from the chemist every time she had coitus with a "suspected" partner. She did not practice contraception. Her last normal menstrual period was on 30.4.81.

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Obstetric History:

She was Para 0 and did not attend infertility clinic.

Past Medical and Surgical History:

There was no history of tuberculosis or previous acute abdomen. She had never been admitted to Hospital.

Social and Family History:

She was an unmarried Bar - maid who practiced coitus with customers from her place of work. There was no history of tuberculosis in the family. She drank alcohol but did not smoke cigarettes.

Physical Examination:

She was a well nourished patient who looked anxious and in pain. She was afebrile and had cold clamy extremities. The mucous membranes were very pale but there was no jaundice.

Cardiovascular and Respiratory Systems:

She was dyspnoeic and had a pulse of 140/minute poor volume but regular. The blood pressure was 90/40mm mercury. The heart size and sounds were normal. She had a respiratory rate of 25/minute which was shallow. The Lungs were normal.

Abdominal Examination:

The abdomen was distended and was not moving with respiration. Cullen's sign was negative. Superficial palpation showed marked tenderness all over the abdomen. There was shifting dullness on percussion and a fluid thrill was present. The liver and spleen were not palpable. There was moderate guarding and marked rebound tenderness.

Vaginal Examination:

Vaginal examination was done as detailed in the introduction. The vulva and vagina were normal without blood. The cervix was closed and cervical movement produced marked abdominal tenderness. The uterus could not be palpated but a mass could be vaguely located in the left iliac fossa.

Diagnosis:

With the above history and physical findings a diagnosis of raptured ectopic pregnancy was made.

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Immediate Management:

1) An intravenous drip of 5% Dextrose was set up and ran fast.
2) Blood was taken for grouping and cross match.
3) An urgent haemoglobin showed 5g/dl.
4) Oxygen was given and the patient prepared for laparatomy.
5) The patient consent for laparatomy was obtained and the abdomen was prepared as detailed in the introduction.

LAPARATOMY:

a) Anaesthesia: The patient was induced with Ketamine anaesthesia 2mg/kg. and maintained on Nitrous oxide: Oxygen 50:50. She was given Suxamethonium 40mg intravenously as muscle relaxant and was intubated with a cuffed endotracheal tube. The blood pressure and pulse were recorded ¼ hourly throughout anaesthesia.

b) Technique: The abdomen was opened by a lower abdominal median incision (see introduction for details). Fresh blood was found filling the peritoneal cavity and a left tubal ampullae raptured ectopic pregnancy was found.

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The bleeding left adnexae was clamped with a strong curved artery forceps to stop haemorrhage. Blood was drawn from the abdomen by a spoon and filtered through a double gauze through a funnel into a transfusion bottle containing anticoagulant.

About two litres were obtained and immediately transfused to the patient. Clotts of blood were discarded. Strong curved artery forceps were applied to the left tube which was found to have raptured at the ampulla. A total left salpingo-ophorectomy was done. A wedge resection of the cornu of the uterus was performed and stitching with number one chromic catgut was done. The oposite tube and ovary looked normal. Abdominal toilet was done and the abdomen was closed in layers as detailed in the introduction.

Post Operative treatment:

1) Blood pressure was observed together with pulse rate ½ hourly for six hours then hourly for another six hours.

2) She was given pethidine 100mg. intramuscularly for pain as necessary.

3) Intravenous fluids were given for 24 hours and 2.5L 5% Dextrose was given.

4) Haemoglobin after 24 hours was 7g/dl

5) Her urine output after 24 hours was 1000ml.

6) She received two more units of blood and by the fifth day her haemoglobin was 10g/dl.

Postoperatively she had no fever abdominal distention or signs of shock. She was up and about on the third day and she was discharged on the 9th day. The skin stitches had been removed on the 7th day. She was discharged with iron and folic acid and she was seen six weeks later in the gynaecological clinic. She had no complains or complications.

COMMENTS:

The diagnosis of an acute raptured ectopic pregnancy is one of the differential diagnosis of an acute abdomen in a woman of child-bearing age. This patient presented rather classically with amenorrhoea shock, normal temperature and signs of intraperitoneal bleeding. Diagnostic andominal paracentesis has been found to be safe and a valuable diagnostic procedure.(1)

This was not used here due to the fact that the history and physical examination were convincing. The history of amenorrhoea, sudden onset of the illness with anaemia and the possibility of tubal pathology from the history of dysmenorrhoea and frequent antibiotics which could mask an otherwise fulminant salpingitis makes one think of an ectopic pregnancy.

It is not always possible to wait for blood in raptured ectopic pregnancy. Immediate laparatomy and arrest of the bleeding is the only treatment which saves the patient. In our environment where blood is scarce, it is fatal to wait for blood which may never come or may come too late. Auto-transfusion when possible is life saving and this was the case here.

Most ectopic pregnancies evolve for few weeks and terminate by death of the foetus due either to haemorrhage or rapture of the walls containing the ectopic conceptus (2). Tubal pregnancy is by far the commonest accounting for 97% of all ectopics in some series (3) (4).

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By doing a salpingo-opherectomy one is depriving the patient of some very necessary endocrine function should the opposite ovary be diseased but by leaving it one does increase the chance of another ectopic. It is also pointed out (5) that the patient will have a better chance of conceiving as ovulation will always occur from the remaining ovary which has a tube. For these two reasons a salpingoophorectomy was prefered to salpingectomy.

REFERENCES:

1) Mampilly J: Diagnostic abdominal Paracentesis in an acute abdomen Med. J. Zambia 10 (5) 137 1976.

2) C Gompel and S. G. Silverberg: Pathology in Gynaecology and Obstetrics 2nd Ed. 1977

3) Bobrow M.L. Bell H. G.: Ectopic Pregnancy; a 16 year survey of 905 cases: Obstet and Gynaecology 20: 500, 1962.

4) Breen J. L.: A 21 year survey of 654 ectopic Pregnancies. Am. J. Obstet. Gynaec. 106: 1004, 1970.

5) Jeffcoate J. Obstet. Gynaecology Brit. Emp. 62: 214, 1955.

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ACUTE PELVIC INFLAMATORY DISEASE

ANTIBIOTIC TREAMENT:

Name: Mrs. M. C. Reg. 296223 Age 19

Address: Ubungo Dar Es Salaam.

Date of Admission: 12.6.81

Date of Discharge: 20.6.81

SUMMARY:

Mrs. M. C. was admitted to Muhimbili Gynaecological Ward because she had vaginal discharge fever and lower abdominal pain. She had dysuria and frequency of urine. All symptoms had been there for three days.

She was found to have very tender lower abdomen with rebound and guarding. She also had purulent vaginal discharge. Pus was taken from the cervix and urethra for culture and sensitivity. Penicillin and Asprin were given after taking the laboratory specimens. The temperature and general condition of the patient improved within 48 hours.

Culture results revealed anerobic streptococcus and staphylococcal fecalis moderately sensitive to penicillin but strongly sensitive to chloramphenicol. No Gonococcus was cultured. The patient improved on penicillin and was discharged after seven days.

History of the Present Illness:

The patient was well until three days previously when she started having lower abdominal pains and fever which got worse with time. The pain was throbbing in character and was made worse by movement. There were periods when the pain was less but it was there all the time. It had progressively become worse to the extent that she could not do her housework. It was mostly located in the sub umbilical area and extended to both iliac fossae. She had no nausea or vomiting.

She had noted that she had copious vaginal discharge which was purulent, bad smelling but was not itchy. She admitted having the discharge off and on previously which got better with hospital treatment but never had it been so copious or associated with abdominal pain. She now had to wear a sanitary pad which she changed thrice per day. Together with the discharge she had painful micrurition and she was now going for urination six to seven times instead of three times per day. She did not feel excessive thirsty and she passed only scanty amounts of urine each time she went to the toilet.

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Previous Gynaecological History:

She had menarche at 14 years which was followed by regular normal menstrual periods lasting 4 - 5 days every 28 days. Her last normal menstrual period started on 4.6.81. There was no history of dysmenorrhoea or inter menstrual bleeding. She had no history of abortions and was not on contraceptives.

Obstetric History:

She was para 2. All normal pregnancies and deliveries. There was no history of pueperal pyrexia.

Medical and Surgical History:

There was nothing relevant.

Family and Social History:

She was a housewife married to a soldier who was away most of the times and came occasionally to visit her.

Physical Examination:

She was a young ill looking woman who had a temperature of 39° centigrade. She was not pale or jaundiced. Her pulse rate was 120/minute and of normal volume. Her blood pressure was 120/70mm mercury. The cardiovascular and Respiratory systems were otherwise normal.

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Abdominal Examination:

The abdomen was not distended and was moving with respiration. The liver and spleen were not palpable and the renal angles were not tender. There was marked tenderness on superficial palpation of the lower abdomen which was more on the left iliac fossa but it was also elicited on the right iliac fossa. The suprapubic area was also tender. There was rebound tenderness and guarding in the areas of tenderness. No masses were palpable in the abdomen.

Vaginal Examination:

Vaginal examination was done as described in the introduction. The vulva and vagina were stained with pus otherwise they were normal. Thick yellowish pus was seen oozing from the cervix and urethra. On palpation the vulva had no onlarged glands. Thick yellowish pus could be squeezed from the urethra. The vagina was hot but not tender. The cervix was closed and firm. The uterus was very difficult to palpate due to the abdominal tenderness but it did not appear bulky. Both adnexae were very tender on palpation and difficult to examine properly. There was extreme tenderness on moving the cervix to any direction.

Diagnosis:

With the above history of fever, purulent vaginal discharge and pain in the lower abdomen and the finding of pelvic tenderness without gastrointestinal symptoms a diagnosis of Acute Pelvic infection was made.

Investigations:

1) Pus swabs were taken from the endocervix and urethra for aerobic, anaerobic and Gonococcal cultures. Grams stain and wet smears were done.
2) Blood was taken for aerobic and anaerobic cultures.
3) Blood for Haemoglobin and Leucocyte total and differential counts were ordered.

Management:

1) Crystalline Penicillin was started and 5 Megaunits were given 6 hourly for 48 hours intravenously to be followed by Procaine Penicillin 2.4 mega units daily pending culture results and patient response.
2) A drip of intravenous 5% Dextrose was set to keep a vein patent for fluids should they be required and for drug administration.

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3) Pethidine was given 100mg intramuscularly for analgesia as necessary.

4) The pulse rate temperature and Blood pressure were monitored 4 hourly as shown in the chart.

Progress and Laboaratory Results:

1) The pulse rate and temperature gradually normalised within 48-72 hours as shown in the chart.

2) The abdominal pain became less and less and her general condition improved steadily.

3) The laboratory results were back.

The Wet smear showed no Trichomonas vaginalis
The grams stain showed pus cells with gram negative and grampositive cocci. No Gonococci were identified.
The Pus culture showed anaerobic streptococci and streptococci fecalis in both cervical and urethral smears. The Sensitivity showed that the organisms were moderately sensitive to Penicillin but strongly sensitive to chloramphenical.
Blood cultures showed no organisms
The white cell count showed a total of 12000 with 20% lymphocytes 76% Polymorphs 4% Eosinophils
The Haemoglobin was 12.5g/dl.

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PROGRESS CHART MR3. M.C. 296223

Date	Time	Temperature	Pulse/min	B.P. mm Hg.
12.6.81	2pm	39°C	120	120/70
	6pm	39.2°C	120	120/80
	10pm	38.8°C	110	120/70
13.6.81	2am	38.5°C	120	120/70
	6am	38.2°C	110	120/70
	10am	38	120	120/80
	2pm	38	110	120/80
	6pm	37.8°C	100	120/70
	10pm	37.8°C	92	120/70
14.6.81	2am	37.8°C	100	120/80
	6am	37.8°C	92	120/80
	10am	37.5°C	84	120/80
	2pm	37.5°C	84	120/80
	6pm	37.4°C	80	120/80
	10pm	37.2°C	80	120/80
15.6.81	2am	37.2°C	76	120/80
	6am	37	76	120/80
	10 am	37.2°C	74	120/80
	2pm	37	72	120/80
	6pm	37	72	120/80

Follow Up:

As the patient was improving she continued with the Penicillin and analgesics. The investigations were repeated on the 5th day of Therapy.:

a) There was only mild lower abdominal tenderness and the temperature and pulse rate were normal.

b) The vaginal discharge had subsided and the uterus and adnexae were normal. There was no more tenderness on movement of cervix.

c) The white cell count was down to 6000 with normal differential.

d) Urethral and cervical swab cultures were negative for any organisms.

Discharge:

The patient was discharged on the 8th day after she finished a seven days course of Penicillin. She had no abdominal pain, fever or vaginal discharge then. The abdominal tenderness had disappeared. She was seen again after three weeks in the gynaecological clinic where she was examined. There was no history of abdominal pain fever or vaginal discharge since she left hospital and examination revealed normal pelvic organs.

There was no pelvic mass. She was advised to report to hospital when ever she has dysuria or vaginal discharge for proper treatment and she was warned that repeated infections may cause serious complications including secondary infertility.

Comments:

The cause of Pelvic inflamatory disease is commonly an ascending infection from the cervix and uterus although haematogenous and lympatic spreads do occur. The complications are numerous and range from acute ones such as septic shock to chronic ones such as infertility. Many manhours of work are lost and families break up because of infertility. The recognition and prompt treatment of patients with pelvic inflamatory disease is therefore very important.

The organisms causing infection have been extensively studied for a long time (1) + (2). It has been found that the organisms cultured from the cervix are not necessarily those found in the inflamed tubes (6) + (7). This case may have been due to a highly penicillin sensitive organisms in the infection site which was not cultured from the cervix.

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This could have been gonococcus. Gonococcal Pelvic inflamatory disease is commonest in the first week of the menstrual cycle (14). This case occured in the first week of the cycle. Also this patient had a history of recurrent vaginal discharge which was treated with probably penicillin. If we assume this to be Neisseria gonococcus infections then the possibility that the present case was a gonococcal pelvic inflamatory disease increases because the risk of gonococcal pelvic inflamatory disease increase in those with a previous history of gonorrhoeae.(8)

There are those who argue that acute salpingitis which is not postabortal or post delivery is always gonococcal and that other organisms are superinfection (2) while others (5) state that gonococcal salpingitis is an entity on itself and that there are other forms by other organisms notably anaerobes. Various other organisms have been cultured (3). Both anerobes and aerobes have been found together in the site of infection of the genital tract.

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(9) In this patient all that can be stated is that the infection was caused by a highly penicillin sensitive organisms which from the above argument could be gonococcus. Others (4) have found that doxycilline was an effective drug when the causative organism was gonococcal but stress that when there is a mixture of organisms then its efficiency is doubtful.

It would seem reasonable to start patients on high doses of penicillin although others (10) argue that antibiotic therapy for both anerobic and aerobic organisms are recommended till cultures are ready. When clinical response is good as in this case there is definitely no indication to change the therapy purely on the basis of laboratory results.

REFERENCES:

1) J. Lukasik: A comparative evaluation of the Bacteriological flora, of uterine cervix and fallopian tubes in case of salpingitis: Am. J. Obstet Gynaecol. 87: 1028, 1963.

2) Brit. J. Obstet Gynaecol. 87: 846, 1980 Infections with anerobic organisms in Obstetrics and Gynaecology.

.../309

3) Monif GRG, Welkos SL and Baer H: Clinical response of patients with gonococcal endocervicitis - endometritis salpingitis - peritonilis to doxycylline: Am. J. Obst. Gynaecol. 129: 614, 1977.

4) Monif GRG, William BT and Dase DD: Group A Steptococcus as a cause of endometritis - salpingitis peritonitis in a non gravid female: Obstet & Gynaecol 50: 509, 1977.

5) Chow A. W., Malkensia K. L. Mashall J.R. and Guzel B. L. The Bacteriology of Pelvic inflammatory disease Amer. J. Obstet. Gynaecol. 122: 876, 1975.

6) P. J. Moberg, P. Eneroth, J. Hartin, Asa Ljung an C. E. Nord Preoperative cervical Microbial flora and Post abortal Infection: Acta Gynaecol. Scand 57: 415, 1978.

...210.

7. C. G. Nilson, E. Vartiainem, and O. Widholm: Bacterial cultures from Intauterine contraceptive device removed patients with pelvic inflammatory disease: Acta Obstet Gynaecol. 60: 563, 1981.

8) Eschenbach D. A., Harnisch J.P. and Holmes K. K.: Pathogenesis of acute P. I. D.; Role of contraception and other factors. Am. J. Obstet Gynaecol 128: 838, 1977.

9) Thadepell H, Gorbach S. L. Keith L: Anaerobic infections of female genital tractl Abacteriologic and therapeutic aspect Am. J. Obstet Gynaecol. 117: 1034, 1973.

10) Richard L. Sweet: Anaerobic infections of the female genital tract: Am. J. Obstet. Gynaecol. 122: 891, 1975.

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05

CARCINOMA OF THE CERVIX

COMBINED EXTERNAL AND INTRACAVITARY RADIOTHERAPY

COMPLETE REMISSION:

Name: Mrs. S.N. Age: 45

Address: Kisarawe

Date of Admission: 5.9.82

Date of Starting Radiotherapy: 12.9.82

Date of Discharge: 25.10.82

SUMMARY:

Mrs. S.N. was referred from Kisarawe hospital because of three months history of blood stained vaginal discharge which was suspected to be due to carcinoma of cervix. She had examination under anaesthesia and biopsy was taken. She was diagnosed carcinoma of cervix stage Ib and histology confirmed it to be a moderately differentiated squamous cell carcinoma of the cervix. She was treated with a total of 8000 rads combined external and intra-cavitary cobalt 60 irradiation administered in five weeks.

The tumor regressed and she was discharged without problems. She was seen after six months in good health and with a negative paap smear.

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History of the Present illness:

The patient had presented herself to the district hospital because she had three months history of vaginal discharge which was bloody and foulsmelling. She was referred immediately to the Muhimbili Specialist clinic after the initial examination. The patient had no prior history of Postcoital bleeding dysuria and the discharge was not itchy. She had been treated at the village dispensary with injections and tablets without improvement. There had been progressive increase in the amount of discharge such that she now had to change her sanitary pads six hourly. She had no pain in the legs and did not complain of lower abdominal pain. Her micturation and bowel habits were normal there was no history of cough or haemoptysis.

Gynaecological History:

She had menarche at 13 years. She had regular normal flow menstrual periods every 28 days and lasting 4 days. There was no intermenstrual bleeding prior to this disease and she had no vaginal discharge. She used no contraceptives.

Obstetric History:

She was para 6. All were normal pregnancies and deliveries belonging to three different male partners.

Medical and Surgical History:

There was nothing relevant.

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Social and Family History:

She was married when fourteen years old and had divorced twice. She was now living with the third husband. In between marriages she lived with boyfriends. She did not smoke but drank alcohol. She was housewife to a peasant.

Examination on Admission:

She was a middle aged lady who looked pale but not in pain. She was not cachexic. She was not dyspnoeic and had no leg oedema. She did not have enlarged lymphnodes.

Cardiovascular System:

The pulse rate was 80 per minute, normal volume her blood pressure was 110/60mm mercury. The heart size and sounds were normal. There were no murmurs.

Respiratory System:

The breathing movements were normal. The trachea was central. The breath sounds were vesicular. There was no areas of bronchial breathing.

Abdominal Examination:

The abdomen was not distended. It was soft on palpation with no masses. There was no area of tenderness. The liver and spleen were not palpable. The renal areas were normal.

6,500 cc

Vaginal Examination:

The vulva and vagina were found to be normal with only blood staining. The cervix contained a fungating mass on the anterior lip which was friable and bleed on touch. The posterior lip was hard but did not bleed on touch. Sound revealed that the uterine cavity was 8cm long. The uterus was anteverted and normal size. The parametrium was free with no masses or fixity to the pelvic wall.

Rectal examination (see G6) revealed a smooth mobile rectal mucosa without rectal bleeding.

Diagnosis:

With the above history and examination findings a provisional diagnosis of carcinoma of cervix Stage I was made.

Investigation:

1) The Haemoglobin was 7g/dl and the white cell count was 6500/cc with normal distribution. Red cell morphology showed hypochromic microcytic anaemia.
2) Blood urea was 20mg./dl and Serum Creatinine was 0.8mg/dl.
3) Stool and Urine microscopy were normal and a Mid-stream Urine specimen culture was sterile. It contained neither albumin nor sugar.
4) Chest and Pelvis X-Rays were normal.
5) Intravenous pyelogram showed normal kidneys and ureters. The bladder showed no filling defects.
6) Culture of the cervical discharge showed a non-significant mixed vaginal flora.

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Plan of Management:

1) Improvement of Haemoglobin

2) Examination under anaesthesia staging and biopsy taking

3) Radiotherapy after Histology results.

Management in the Ward.

The patient was transfused blood group O Rhesus positive three units and the haemoglobin rose to 10gram/dl. She was given protein diet in the form of eggs, milk and meat. She daily took ferrous sulphate and folic acid to improve the haemoglobin.

Examination under anaesthesia:

The patients perineum was prepared as detailed in the introduction for vaginal operation. Consent in theatre for operation and anaesthesia was given.

She was starved the night before operation and was premedicated with atropine 0.6mg and pethidine 100mg. intramuscularly ½ hour before going to theatre.

In theatre anaesthesia was induced with sodium thiopentone 250mg. intravenously and she was maintained on Nitrous oxide-oxygen 50:50 mixture. She was put on lithotomy position. The perineum and vagina were cleaned with savlon and draped with sterile towels except for the field of operation. Catheterisation was done as detailed in the introduction and 250mls of urine was removed. Auvards speculum was used to visualise the cervix. A fungating friable mass was seen occupying the anterior aspect of the cervix but did not involve the vagina. The cervical os was visible and sounding revealed a uterine cavity of 8cm long. Bimanual examination revealed a normal size uterus, anteverted and mobile. The parametrium was normal and the fornices

were normal. Rectal examination revealed normal smooth mobile rectal mucosa. There was no blood on the examining finger. A biopsy was taken from the suspicious mass including what looked as normal cervix.

Staging and definitive diagnosis: Radiotherapy:

Anaesthesia was discontinued and the patient returned to the ward where the pulse and blood pressure was monitored until she was awake. She was staged carcinoma of cervix stage Ib. Histology report was available seven days later and revealed a moderately differentiated squamous cell carcinoma of the cervix. It was then decided that the patient should be treated with a combined external radiotherapy and intracavitary radiotherapy using cobalt 60.

A total of 4000 rads of external radiation were given in fractions 200 rads four times a week. The total dose been given in 5 weeks. Simultaneously four intracavitary applications at weekly intervals were given to deliver between 600 and 1,000 rads to point A.

With the intracavitary radiotherapy the Remote After loader was used utilising cobalt 60 as a source of radiation. The after loading application one in the uterus and one into each lateral fornix were placed without anaesthesia or sedation. These applicators and the "safe" containing the radioactive material and stored in the centre of the wall of the treatment room were than connected with a nylon tube, through which the source is transfered from the "safe" to one of the three applicators for a Preset time. The source was transfered into each of the three applicators in

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turn, all movements of the source being done by hand from the outside of the treatment room, using a cable to which the source is attached.

With the external radiation a pelvic field of 15 cm x 15cm was used and the patient received 200 rads tumor dose per session. Cobalt 60 was used as a source and administration was from a Jenus machine.

COMMENTARY:

Carcinoma of the cervix is the commonest gynaecological malignancy affecting women in Muhimbili Medical Centre. It constitutes 85% of all the tumors encountered and forms 2% of the total admissions to the gynaecological ward (1). Most of the cases present late and the prognosis is therefore expected to be poor. For cases presenting late diagnosis is not difficult because few conditions can be confused with carcinoma of cervix. In early cases as in this case cervical erosion, polyp or schistosoma granuloma may simulate carcinoma of cervix. It was therefore important to examine the patient under anaesthesia so that a biopsy can be taken and staging done. This determined the extent of the disease and confirmed diagnosis.

Carcinoma of the cervix is usually of the squamous cell type although 8 - 10% are adenocarcinoma (2) - (3). Stage IB is defined as clinically diagnosable carcinoma confined to the cervix, stage Ia being reserved for preclinical carcinoma (4). For advanced carcinoma of cervix radiation therapy is the treatment of choice

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and shows better results than surgery (5) but for selected cases of IB stage, improved medical support and variation in surgical technique have resulted in similar 5 year survival rates (6). Combination of surgery and radiotherapy for stage IB have not resulted in improved survival rates than either alone (7) (8) so radiotherapy alone being the treatment available in this centre was used.

The prognosis of stage IB cancer of cervix is related to the uni or bilaterality, number, percentage and extension of the lymphnode involvement (9). There are report of positive node rates of from 4.3% to 34.2% in stage IB cancer (2) (10). The number of positive lymphnodes after irradiation varies considerably (2) but this can not be compaired to surgical controls because the number of positive nodes prior to radiotherapy is unknown (11) (12).

With radiotherapy the megavoltage is prefered to the conventional orthovoltage because with the former skin and bone damage is minimal.

For the intracavitary therapy the Remote After loader provides full protection to staff against irradiation (13). The haemoglobin and white cell count were monitored to detect any myelosuppression and an initial high haemoglobin was necessary because anoxic tissues do not respond to radiotherapy well (13).

Carcinoma of cervix is known to occur in the low socioeconomic group and in those where sexual promiscuity abound. It is also known to be preceeded by carcinoma in situ which can be diagnosed by cytology using the papanicolaou smear.

With improvement in the standards of living one will expect a fall in the incidence of the disease. Regular Papanicolaou smears to detect carcinoma in situ in the susceptible age group is an acceptable preventive measure. Until these services are available all over the country invasive carcinoma will continue to be seen.

REFERENCE:

1) Ngaya H.N. and Alexander G: Treatment of the Carcinoma of uterine cervix at Muhimbili Medical Centre. Proceedings of the Scientific Conference of AGOTA 1979.

2) Kriakos M, Kampson R.L., Perez C.A: Carcinoma of the cervix in young women.obstetrics and Gynaecology 38: 930, 1971.

3) Tasker T.J. Collins J. A: Adenocarcinoma of the Uterine cervix. Am. J. Obstet. Gynaecol. 118, 344, 1974.

4) FIGO News: Int. J. Gynaecol. Obstet. 9, 172, 1971.

5) Fletcher G.H. and Rutledge F.N.: Over all results in radiotherapy for carcinoma of cervix Clinical Obstet. Gynaec. 10: 958, 1967.

6) Delgado G; Stage IB squamous cancer of cervix The choice of Treatment Obstet. Gynaecol. Review 33; 174, 1978.

7) Nieminen U: Experimental study of a new combination of surgery and Radiotherapy for treatment of Carcinoma of cervix Acta Obstet. Gynaec. Scand. 49: 351, 1970.

8) Stage A.H., Crawford E.J. Robinson L.S., Brooks G.G. combined Radiologic/operative therapy in the treatment of cervical malignancy: Ame. J. Obstet. Gynaec. 120: 960, 1974.

9) Pilleron J.P., Durrand J.C., Hametin J.P.
Prognostic value of node melastasis in Carcinoma of
Uterine cervix.
Am. J. Obstet. Gynaec. 119: 458, 1974.

10) Mannual E.W. and Bonney W.A.: Critical points of failure
in therapy of cancer of cervix, Ame. J. Obstet. Gynaec.
81, 521, 1961.

11) Gray M.J. Gusberg S.B. & Guttmnn R.
Pelvic lymphnode dissection following Radiotherapy
Am. J. Obstet. Gynaec. 76, 629, 1958.

12) Burch J.C., and Chalfmat R.L. Pre-operative radium irradiation
and radical hysterectomy in the treatment of cancer of cervix
Am. J. Obstet. Gynaec. 106, 7, 1970.

13) J. Howkins and C.N. Hudson
Shaws Textbook of Operative
Gynaecology 4th Ed.
Churchill Livingstone
Edinburg - London - Newyork 1977.

RETROVERTED UTERUS DYSPAREUNIA

GILLIANS OPERATION:

Mrs. T.C. Age: 28 Years.

Date of Admission: 12.5.81

Date of Operation: 13.5.81

Date of Discharge: 20.5.81

S U M M A R Y:

Mrs. T.C. was admitted to the gynaecological ward because of lower backache and dyspareunia. She had been seen at the gynaecological outpatient clinic where a diagnosis of fixed retroverted uterus had been made she had a Hodge Pessary applied with relief for 4 weeks and the removal of the pessary had caused recurrance of the symptoms. She had round ligament plication and anchorage of the threads to the external abdominal fascia. The post operative course was uneventful. She reported complete disappearance of symptoms by 3 months later.

History of the Present illness:

The patient presented to the gynaecological clinic with a six months history of low backache and painful coitus. The backache had been dull and present all the time although it was worse during menstrual periods. She also had deep pain during coitus especially when the supine position was used. The pain was less when lateral position was adopted. This made the patient detest coitus. She had no history of vaginal discharge or acute pelvic pain.

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Gynaecological History:

She had menarche at 15 years which was followed by regular menstrual cycles every 28 days with moderate bleeding which lasted 3 days. There was no history of dysmenorrhoea and there was no history of abortion. She had not used contraceptives.

Obstetrics History:

She was para 2. All were normal pregnancies and deliveries. The last child was 4 years old.

Medical and Surgical History:

There was nothing relevant.

Family and Social History:

She was a married secretary who lived with her husband. She drank moderate amounts of alcohol but did not smoke.

Examination:

The patient was anxious, healthy but not obese. She was not ill looking, was not pale and had no ankle oedema or generalised lymphoadenopathy.

Cardiovascular and Respiratory Systems:

She was not dyspnoeic. She had a pulse of 76/minute normal volume. Her blood pressure was 110/80 mm mercury. Her heart size and sounds were normal. She had normal breath sounds.

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Abdominal Examination:

The abdomen was not distended and was moving with respiration. There were no areas of tenderness. The liver and spleen were not palpable. The renal areas were not tender and contained no palpable masses. No mass could be palpated suprapubic.

Vaginal Examination:

Vaginal examination was done as detailed in the introduction. The vulva and vagina were normal the cervix was normal, closed and anteriorly located. The uterus could not be felt suprapubically but was felt in the pouch of Douglas. Nothing was palpated on both iliac fossae.

Rectal Examination:

A rectal examination was done. The gloved right index finger was used. The finger was lubricated with K.Y. Jelly and pressure was applied using the pulp of the finger on theanal orifice until the external anal sphincter relaxed. The finger was then introduced. The rectum was palpated and nothing abnormal was found. Bimanual examination was done with the finger in the rectum palpating the pouch of Douglas and the external hand palpating the abdomen. The uterus was felt to be retroverted and in the pouch of Douglas.

Diagnosis:

With the above history and examination finding a diagnosis of fixed retroverted uterus was made.

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Immediate Management:

The patient was treated with a Hodge Pessary. With the first two fingers of the right hand in the vagina, the cervix was pushed backwards while the uterus was pushed upwards and forwards. The external left hand was used to help, in the bringing of the uterus to the anterior position. With the uterus and cervix in this position a Hodge pessary was placed in the vagina so as to maintain tension on the posterior fornix and to maintain the uterus in the anteverted position. The right hand was withdrawn from the vagina and the patient allowed to go home. She was seen again after four weeks when she was examined and the uterus found to be anteverted. She reported that there was no more dyspareunia and the backpain was less. The Hodge Pessary was removed without the patients knowledge, the uterus was manipulated back to retroversion and a simple pessary was inserted into the vaginal without correction of the retroversion. She was allowed home and was seen again after 4 weeks. She reported that the dyspareunia had recurred and the backpain was worse. She was advised on an operation which would restore her uterus to the normal position. She agreed.

Pre-operative Preparation:

The patients haemoglobin was checked and found to be 12g/dl. Her urine contained neither sugar nor proteins. She had a blood pressure of 110/80 mm mercury and a pulse rate of 76/min normal volume. The abdomen was prepared for laparatomy as detailed in the introduction. Consent for the operation was obtained in writing

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and nil was given by mouth overnight. She was given atropine 0.6mg and Pethidine 100mg intramuscularly one hour before going to theatre.

Anaesthesia:

General anaesthesia was used as for case G7.

Operative Technique:

The abdomen was cleaned with antiseptics and draped with sterile towels as explained in the introduction. A lower median abdominal incision was used and abdomen opened (see introduction). A self retaining retractor was placed in the abdomen and the intestines were packed with large gauze packs away from the true pelvis.

A few adhesions were found between the uterus and the Pouch of Douglas and they were easily separated. The uterus was then lifted by the assistant and the round ligaments was identified. Using a monofilament nylon number 2/o mounted on a round bodied curved needle 5 bites were taken starting close to the internal abdominal ring towards the uterus. The four bites were on the round ligament itself and the last one was made into the substance of the myometrium. The lateral and medial ends of the stitch were then tied together tightly. The procedure was done on the oposite side and the effect of the procedure was anteversion of the uterus due to the shortening of the round ligaments. The threads were cut and left long.

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The rectus sheath was then opened by a small cut and a curved clamp was passed between the rectus muscle and the anterior rectus sheath, until the point of the forceps reached the neighbourhood of the internal abdominal ring. The point was then directed downwards and the forceps slightly opened. The peritoneum between the two opened blades of the forceps was nicked with a scalpel by the assistant. This was at a very lateral position to ensure that there was no free space between the opening and the lateral parieties through which the bowel could herniate internally to cause obstruction. The plicating ligature was seized by the forceps and withdrawn along the track between the rectus muscle and the anterior rectus sheath. It was held in that position by the assistant while an exactly similar procedure was done on the opposite side. Both ligatures were held taut by the assistant while the surgeon inserted a finger into the peritoneal cavity to ensure that there was no lateral fossa. Each round ligament suture was then anchored to the anterior rectus sheath by passing it in a needle through the sheath about 5cm lateral to the midline. Both ends were firmly tied.

The uterus was found to be well anteverted. The abdomen closed in layers (see introduction). The rectus sheath was closed with interrupted chromic. Catgut number one.

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Post Operative Treatment:

1) She was given Pethidine 100mg Intramuscularly for pain as necessary.
2) The patients pulse remained 80/minute and Blood Pressure 110/70 mm mercury throughout post operative period.
3) She did not develop a temperature or abdominal distension.
4) She received 2.5L of Dextrose 5% in 24 hours
5) She passed flatus after 36 hours, was encouraged to be up and about and she started oral fluids.
6) The skin stitches were removed after seven days when the wound was found to be well healed.

Follow up:

She was discharged and was seen four weeks later in the gynaecological clinic. She was examined and she was found to have no abdominal tenderness or pelvic tenderness. The uterus was still anteverted and the adnexa were not tender. She had not started coitus but reported that the backache was not there any more. She was seen again after 3 months when she reported no dyspareunia or dysmenorrhoea. Her pelvic organs were found to be in the normal position. She was therefore discharged from the gynaecological clinic.

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Comment:

Retroversion of the uterus is common among women. It occurs in about 20% of women. (1) (2) It may be congenital occuring in multipara due to inherent weakness of the pelvic supporting tissues and decreased tone of uterine myometrium or may be acquired and this commonly occurs post delivery due to relaxation of the pelvic fascia and uterine muscle. The later usually corrects itself when involution is complete but may persist. When retroversion is due to conditions such as the above and not associated with any pelvic pathology it is called mobile retroversion and usually it causes no symptoms and requires no treatment (1). When it is associated with pelvic pathology such as pelvic inflamatory disease, endometriosis or diverticular disease, it is termed fixed retroversion (1). Our patient in this case presented with fixed retroversion.

Mobile retroversion is often found accidentally during examination. If the patient has complains such as infertility, pelvic pain or dyspareunia it must not be assumed that the retroversion is the cause - hence the pessary test used in this patient to sort out the cause of dyspareunia. Dyspareunia in retroversion of uterus is due to prolapse of the ovaries (1) (3) although it was formerly (2) said to be due to endometriotic implants on the pelvic floor or the stretching of pelvic adhesions. She had a 4 year involuntary infertility which is occassionally attributed to retroversion (3) although the majority of women with retroversion have no problem with conceiving (3). One would have to exclude other causes of infertility such as tubal blockage in this patient who had pelvic

adhesions. In the treatment of fixed retroversion of the uterus such as this one pessaries could be used but they often cause irritation and vagina discharge (3) so that surgical correction was preferred. In doing the Gilliams operation one has to make sure no lateral fossa is left through which herniation of the intestine could occur and cause obstruction.

REFERENCES:

1) Howkins J. and Hudson C.N.
Shows textbook of Operative Gynaecology Pg. 228
4th Edition 1977 Churchill Livingston Edinburg - London.

2) Gynaecology 1964: Parson L. and Sommers S.C.
W.B. Saunders Company U.S.A.

3) Symmonds R.E.: Malposition of the Uterus
Current Obstetrics and Gynaecology
Diagnosis and Treatment 1976 Page 227 by Benson R.C.
Lange Medical Publications
Los Altos California.

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UTERINE FIBROIDS

SEVERE MENORRHAGIA

TOTAL ABDOMINAL HYSTERECTOMY

Name: Mrs. J.B. Age 34: Para 3

Address: Temeke

Date of Admission: 14.8.82

Date of Operation: 16.8.82

Date of Discharge: 26.8.82

SUMMARY:

Mrs. T.B. was admitted to the gynaecological ward through the gynaecological clinic because of prolonged heavy menstrual periods for six months. She had been examined in the clinic where she was found to have a firm multinodular uterine enlargement to the size of 24 weeks pregnancy. She was diagnosed as having uterine fibroids. She had a total abdominal hysterectomy done after blood transfusion. Her recovery was uneventful.

History of the Present Illness:

The patient had been well until six months previously when she noticed that her menstrual periods were increasing in amount and lasted longer. She was now changing sanitary pads five times instead of twice and the bleeding contained clots. She was now menstruating for seven days instead of three. She had blood transfusion in a private hospital and a diagnostic curretage had been done. The histological report had shown normal secretory endometrium and was available with the patient.

Together with the bleeding she now was experiencing low back pain which was dull and made the pelvis feel heavy. The pain was not incapacitating so that she did not have to go to bed because of it. She had no dysuria or frequency of urine. Her bowel habits were normal and she had no history of bleeding per rectum. She described no episodes of acute abdomen but she had noticed a swelling in the lower abdomen for about one year now. This did not give her problems until the last six months when she noted the increased menstrual bleeding. She had an involuntary infertility for 12 years which did not bother her.

Gynaecological History:

She had menarche at 15 years which was followed by regular menstrual cycles every 28 days lasting 2 - 3 days until six months previously. She had no history of abnormal bleeding or contraceptives and was not attending infertility clinic. Her last menstrual period was on 30.7.82.

Obstetric History:

She was para 2. All were normal pregnancies and deliveries. The last child was 12 years old.

Past Medical and Surgical History:

There was nothing significant.

Family and Social History:

She was married to a teacher and was a housewife who did not smoke or drink alcohol.

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Examination on Admission:

The patient looked pale but was not dyspnoic. She was not in pain. She looked well nourished and had no ankle oedema. Her pulse rate was 76/minute normal volume. The blood pressure was 110/70 mm mercury. Her cardiovascular and Respiratory systems were normal.

Abdominal Examination:

The lower abdomen was distended to the level of the umbilicus more centrally than laterally. It was moving with respiration. There were no surgical scars. Palpation revealed no areas of tenderness. The liver and spleen were not palpable. The renal areas were not tender and had no palpable masses. There was a hard nodular mass arising from the pelvis and extending to the level of about 24 weeks pregnancy. It was mobile from side to side but limited movement up and down. It was not tender.

Vaginal Examination:

Vaginal examination was done as detailed in the introduction. The vulva and vagina looked normal but pale. The cervix was closed and appeared normal. The uterus was 24 weeks enlarged and contained multiple firm smooth surfaced masses on both the anterior and lateral surfaces. The adnexae were free and non tender.

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Diagnosis:

With the above history and Examination findings a provisional diagnosis of uterine fibroids with Menorrhagia was made.

Investigation:

The following investigations were done and results obtained.

Haemoglobin	- 7g/dl
Blood Group and Crossmatch	- 'O' Rh Positive
Blood Film-red cell morphology	- Hypochromia Microcytosis
White Cell Count	- 7500/cc with normal distribution
Urine - Microscopy	- No Pus cells, No casts
- Sugar	- Negative
- Protein	- Negative
- Culture	- Sterile
Blood Urea and Creatine	- Urea 25mg% Creatine 1.2mg%

Pre-operative treatment:

1. The patient was informed about the diagnosis and that the treatment was going to be a total abdominal Hysterectomy. She was explained that she will bear no more children and that her menstrual periods will stop. She was assured that her sexual life will be unimpaired and that apart from missing her monthly bleeding she will be a normal woman.
2. Consent was obtained for the procedure from both her husband and herself.
3. She was transfused three units of blood and her haemoglobin rose to 11g/dl.
4. The abdomen was prepared for operation as detailed in the introduction.

5. She was starved overnight and received 0.6mg atropine intramuscularly ½ hour before going to theatre.

Total Abdominal Hysterectomy:

Anaesthesia: The patient was induced with thiopental sodium 250mg intravenously and paralysed with suxamethonium 40mg intravenously. She was intubated with a cuffed endotracheal tube and Nitrous oxide: Oxygen, 50:50 was used for maintanance. Ether was used in addition.

Technique:

The patient lay in the Trendelenburg position after she had been catheterised in the dorsal position under sterile conditions as described in the introduction.

The abdomen was prepared as detailed in the introduction. A right lower paramedian incision was used so that it could be extended upwards if necessary. Self retaining retractors were introduced and the intestine were packed off using a gauze pack. The fundus of the uterus was grasped with volsellum forceps and drawn up to the right. The right appendages were now in view. Both ovaries and tubes looked normal.

A large curved clamp was placed over the right ovarian ligament and the right Fallopian tube and a long straight forceps placed on the right round ligament. A pair of long straight forceps were applied on the uterine side of both the preceeding clamps and the intervening tissues cut through with Mayo's scissors. Care was taken to apply the clamps as close to the uterus as possible as to live plenty of space for ligatures to be applied away from the ovarian tissue. Both the stumps were now ligated

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with a strong No.I chromic catgut. The Procedure was repeated on the left side of the uterus.

The uterus was now firmly pulled to the left side of the patient by the assistant. Using Mayo's scissors and dissecting forceps the peritoneum which forms the anterior lief of the broad ligament was divided downwards and inwards towards the uterovesical pouch. The round ligament was drawn laterally and the fascia between it and the uterus was divided down to the cervical fascia. This was done on both sides and in this way the uterine vessels were exposed. Strong curved clamps were applied near the junction of the body of uterus to the cervix where the uterine artery pulsations were also felt. The vessels were divided with Mayo's scissors, dissection carried downwards and ligated with Chromic catgut No.2.

The Peritoneum of uterovesical pouch was then divided. This was done immediately below the fossa over the uterus where the peritoneum is adherent but before reaching the bladder top. The loose peritoneum was picked up with dissecting forceps and divided transversely using Mayo's forceps. The peritoneum was then pushed downwards by blunt dissection through the vesicouterine and vesical cervical space.

The bladder and ureters were then separated from the cervix and upper vagina. The endopelvic fascia lying on each side of the midline was divided with scissors near their attachment to the uterus. This enabled the bladder and ureter to be stripped away from the cervix. The parametrium lateral to the uterus below the ....

level at which the uterine artery reaches the lateral border of the uterus was divided. This was done by drawing the fundus of the uterus to one side and applying a long straight clamp below the level of the pedicle containing the uterine vessels. Care was taken to avoid the bladder and ureters. The ureters were palpated and felt to be safe.

The uterosacral ligaments were cut through to open the vagina. To do this the assistant had to hold the uterus upwards and forwards. A curved clamp was then placed on the vaginal angle including the utero-sacral ligaments and the tissues which lied between the uterus and the clamp were cut through with scissors. After clamping both vaginal angles and utero-sacral ligaments the uterus was pulled upwards. Using scissors continuously the vagina was opened. Long straight forceps were attached to the cut edge of the vagina. The vagina was opened from behind forwards to avoid the bladder and ureters.

The tissues enclosed by the clamps were then ligated and transfixed with No.I chromic catgut. Spurting arteries in the cut edges of the vagina were picked up by Kocher's forceps and transfixed with Number I chromic catgut. The vagina was closed by interrupted sutures using chromicised catgut No.I. The vaginal angles were securely tied to avoid bleeding. The raw pelvic surface was covered by suturing the round ligament to the stumps bearing the uterine arteries, ovarian ligament and to the lateral wall of the vagina. In this way most of the raw area was covered and by anchoring the ligaments to the lateral vaginal wall a prophylaxis for future vault prolapse was ensured.

After the gauze count had been pronounced correct, the abdomen was closed in layers as described in the introduction and silk was used for the skin. Anaesthesia was discontinued and the patient was sent to the recovery room.

Post Operative treatment (see chart)

1) The blood loss was estimated to be 1000ml so she received two more units of blood.
2) Blood Pressure and Pulse were monitored ½ hourly for two hours then hourly for 6 hours then 6 hourly.
3) Pethidine was given 100mg intramuscularly for pain as required.
4) Intravenous fluids were given 2000ml. 5% Dextrose and 500ml Normal Saline in twenty four hours.
5) Input and output chart was ordered
6) Passive limb exercise were to begin within twenty four hours.

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POST OPERATIVE CHART:

MRS. J.B.

TIME	TEMP.	PULSE/ MIN.	BLOOD PRESSURE	RESP. RATE	INPUT	OUTPUT	DRUGS.
00	37°C	100	100/60	24	1000 5% Dextrose	-	-
15	"	96	100/60	20	-	-	-
30min.	"	96	100/70	20	-	-	-
45min.	-	90	100/70	20	-	-	Pethidine 1m 100mg.
1hr.	-	84	100/60	20	Blood 1000ml.	-	-
1-15min.	-	84	100/70	20	-	-	-
1-30	-	84	100/70	20	-	-	-
1-45	-	84	100/70	20	-	-	-
2hrs	-	80	110/70	18	-	-	-
3hrs	37°C	80	110/70	18	-	-	-
4hrs	-	80	110/70	18	500 Normal saline	-	-
5hrs	-	80	110/70	18	-	-	-
6hrs	-	80	110/70	18	-	-	Pethidine 100mg.i.m.
12hrs.	37°C	80	110/70	18	1000ml. 5% Destrose	800ml. Urine	Pethidine 100mg.
18hrs	37°C	80	110/70	18	-	-	-
24hrs	37°C	80	110/70	18	-	1,700ml.	-
					3500	2,500	

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Her pulse and Blood Pressure steadily stabilized. She did not develop a fever and her urine output was 2500 against an input of 3500 in twenty four hours. The abdomen was not distended and there was neither vaginal bleeding nor oozing on the wound. She stopped intravenous fluids after 48 hours when she passed flatus and she started oral feeds.

Stitches were removed on the 8th day when the wound was found to have healed well. She was discharged on the tenth day in good condition and was instructed to come to the gynaecological clinic for check up after two weeks. Her post operative haemoglobin was 10g/dl and so she was given oral haematinics. She was seen after two weeks when her haemoglobin was found to be 11g/dl. She had no vaginal bleeding or discharge. The abdomen was soft and the wound was intact and healed. She was therefore discharged from the Gynaecological clinic.

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COMMENTS:

Uterine fibroid is the commonest gynaecological tumor and is said to occur more frequently with advancing age in infertile patients (1). It is said to be the commonest tumor of the human body. The vast majority of them are symptomless and are diagnosed by accident during pelvic examination for other reasons. When they persist to the menopause they are even more unlikely to cause symptomsbecause they usually undergo atrophy along with the uterus.

This patient presented with a disturbed uterine function which is one of the commonest symptoms (2) (4) when symptoms are present. Increased menstrual loss may be due to the enlarged uterus by submucous fibroids or due to the increase vascularity of the uterus. The patient had infertility of 12 years also which although she did not complain of, it could have been caused by the fibroids. Besides these she also had an abdominal swelling which she noticed but did not complain of, probably because it did not affect her bladder or bowel function. The patient presented rather late with a large multiple fibromyoma. Had other complications like torsion, degeneration, impaction or haemorrhage occured she might have presented earlier.

The management of a patient with fibromyoma depends on the presence or absence of symptoms and her attitude towards future pregnancies. In a patient who has no symptoms and a small fibroid is found conservative treatment is recommended. (2) The patients are reassured and kept under regular supervision to detect any enlargement or complications. When the fibroids cause symptoms as in this patient then treatment is indicated. Either myomectomy or Hysterectomy may be performed. In this patient Hysterectomy was chosen because of the size of the tumor and the fact that she required no more children. Uterine fibroids are the commonest indications for hysterectomy (3). It is recommended that it be done during the secretory phase of endometrium to minimise the risk of infection (3). In patients who have a low haemoglobin such as this one pre-operative blood transfusion is mandatory.

When the fibroid is small one may use the vaginal route to perform the hysterectomy although morbidity and post operative bleeding have been found to be more with vaginal rather than abdominal hysterectomy (3). In any case deadly complications such as thromboembolic phenomena which are the major cause of death (3) have to be watched for. It is for this reason that others (5) have used low dose heparin just prior to and 8 - 12 hours interval following operation with substantial reduction in the incidence of thromboembolic disease.

Prophylactic antibiotics has been advocated but the author does not think it justifiable where the surgery is elective and there is no evidence of infection. This policy proved itself in this case which recovered without complications.

REFERENCES:

1. Llewellyn - Jones D
Fundamentals of Obstetrics and Gynaecology
Vol. I Obstetrics 1971 Page 225
Faber and Faber Ltd - London.

2. Dewhurst C.J.
Intergrated Obstetric and Gynaecology for Postgraduates, 1972.

3. Blackwell Scientific Publications
Oxford - London Edinburg.

4. Amirikn H and Evans T.N.
Ten year review of Hysterectomies: Trends
Indications and Risks. Am. J. Obstet. Gynec.134:431, 1979.

5. Baggish M.S.; Mesenchymal tumors of the Uterus
Clinical Obstetrics and Gynaecology 17 (2): 51, 1974.

6. Kaldn V.V., Corrigan J.P. and Pessard D.P.
Lancet 2: 45, 1975.

7. Allen J.L., Rampone J.F. and Wheeless C.R.
Use of prophylactic antibiotics in elective major
gynaecologic operations: Obstet. Gynaecology 39: 218, 1972.

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BARTHOLINS ABSCESS

INCISION AND DRAINAGE

MARSUPIALISATION:

Name: Mrs. Y.K. Age 29 Years.

Address: Magomeni

Date of Admission: 15.6.82

Date of Operation: 15.6.82

Date of Discharge: 21.6.82

SUMMARY:

Mrs. Y.K. was admitted to the Gynaecological ward with complains of swelling in the external genitalia for five days, dyspareunia and difficult in walking for five days. Examination revealed that she had a purulent vaginal discharge whose culture and gram's stain showed gram negative intracellular and extracellular diplococci, Neisseria gonococci being isolated. She had a large Batholins abscess at the inferior aspect of the left labium majus. Incision and drainage was done under General anaesthesia and Marsupialisation was done. She was treated with antibiotics and was discharged after seven days in good condition. She was seen three weeks later in the gynaecological clinic with no complains.

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History of the Present Illness:

The patient who had been well five days previously noted that she was developing a swelling in the external genitalia which was not tender to begin with but progressively grew bigger and tender. It was causing dyspareunia and later she could not walk. There was no history of genital injury and denied history of purulent vaginal discharge. She had no history of recent delivery, abortion or genital operation.

Gynaecological History:

The patient had menarche at 15 years which was followed by regular menstrual periods every 28 days which lasted 3 days. She had no history of abortion and was not on contraceptives. Her last normal menstrual period was 6.6.82.

Obstetric History:

She was para one, a ten year ago normal pregnancy and delivery which had been followed by involuntary infertility.

Past Medical and Surgical History:

There was nothing significant.

Social and Family History:

She was an unmarried typist who drank alcohol but did not smoke cigarettes.

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Physical Examination:

She was a well nourished woman in moderate pain. She was not pale and had no peripheral oedema. Her pulse rate was 80/ minute normal volume. Her blood pressure was 120/80mm mercury. She was apyrexic. Her cardiovascular Respiratory and central nervous systems were normal.

Abdominal Examination:

The abdomen was soft, non tender. There was no organomegally and there was no palpable masses.

Vaginal Examination:

Inspection of the vagina showed a red swelling about 5cm in diameter on the inferior portion of labium majus. Pus was visualised draining from the vagina. The vagina and cervix was otherwise normal looking. The swelling was found to be hot and very tender. It was fluctuating. The vagina was similarly warm and the cervix was firm and closed. The uterus and adnexae were difficult to palpate due to the tenderness at the introitus but were thought to be normal.

Diagnosis:

With the above history and examination findings a diagnosis of Bartholin's abscess was made.

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Management:

1. Pus swabs were taken from the endocervix and urethra for culture and sensitivity. Gram's stain showed gram negative intra-and extra cellular diplococci.

2. She was given Pethidine 100mg. intramuscularly for pain.

3. Consent for operation was obtained and she was prepared for vaginal operation (see introduction).

4. Incision, Drainage and Marsupialisation of the abscess was done (see below).

5. She was started on Crystalline Penicillin 5 Mega units intramuscularly and was to continue with Procaine Penicillin 2.4 Mega units daily. till results of culture came.

Incision and Drainage - Marsupialisation:

Anaesthesia: General anaesthesia was used. She was induced with thiopental sodium 250mg. intravenously and maintained on Nitrous oxide: Oxygen 50:50 Mechanical ventillation was used.

Technique:

The patient lay on the Lithotomy position and the perineum was cleaned as for vaginal operation. Two Semicircular skin incisions were made on the vaginal side of hymenal ring. The incisions 3cm long were made to include both the skin and abscess wall. The edges were trimmed to leave an aperture 1cm in diameter. Pus was evacuated from the cavity to empty. The edges of the skin and abscess wall were secured by Allis forceps and a series of interrupted sutures of fine 2/0 chromic catgut were applied circumferencially at 1cm intervals.

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The sutures secured position of the cyst wall and vaginal skin to leave a clean circular scar.

Post Operative treatment:

1. The anaesthesia was stopped, the patient returned to the ward and instructed to have antiseptic baths twice a day.
2. Culture results were back after 48 hours and revealed Neisseria gonococci as the causative organism. The antibiotic was stopped.
3. She was discharged on the seventh day without pus and with an almost healed wound. She was now able to walk. She was apyrexia and urethral and Endocervical cultures were sterile.

She was seen three weeks later in the gynaecological clinic when the external genitalia was found to be normal except for a small scar where the incision had been made. The vagina was normal and the pelvic organs were normal.

C O M M E N T S:

Bartholins abscess is a common gynaecological condition (1). It may make coitus impossible and walking unbearable as it occured in this patient. The condition results from blockade of the duct with subsequent accumulation of secretions which become infected. Although inflamatory conditions of the duct are the commonest causes Bartholins abscess may be caused by a misplaced episiotomy when the duct is either cut though or involved in the subsequent scaring.

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In the treatment of Bartholins abscess one has a choice of either using antibiotics only with drainage of the pus or excising the cyst. With the former recurrences are common and the later is bloody and a lengthy procedure. The operation of choice is marsupiatisation and was done in this patient for the following reasons (2).

1. It is a simple procedure and saves time.
2. Haemorrhage is minimal and easily controlled.
3. The postoperative hospital stay is short.
4. Some functions of the gland of lubrication of vagina are preserved.

Complications of recurrence and bleeding may occur but these are rare when the cyst wall has been secured well with Allis forceps and when the incision was big enough. The commonest organisms involved are the Gonococci; streptococci and staphylococci (3). When these are encountered they should be eradicated to minimise the chance of the opposite gland being infected.

REFERENCES:

1. Gompel C. and Silverberg S.G.
Pathology in Gynaecology and Obstetrics 2nd Ed. 1977
J.B. Lippincott Co. Philadelphia Toronto.

2. Howkins J. and Hudson C.N.
Operative Gynaecology 1977
Churchill Livingstone
Edinburgh London New York.

3. Principles of Gynaecology
Jeffcoate T.N.A.
London Butterworths.

BENIGN OVARIAN TUMOR

LAPARATOMY

SALPINGOOPHORECTOMY

Name: Mrs. M.B. Age 30 years.

Address: Keko - Dar es Salaam.

Date of Admission: 10.4.81

Date of Discharge: 24.4.81

SUMMARY:

Mrs. M.B. was admitted to the gynaecological ward through the gynaecological clinic because of a diagnosed Right ovarian tumor. She had complained of lower abdominal pain and lower abdominal swelling for two months. She had no dysuria or frequency of urine. There was no abnormal vaginal bleeding. She was found to have a right adnexal mass of about 20 cm diameter. A diagnosis of right ovarian tumor was made. She had laparatomy and a right ovarian cyst was found. A right salpingoophorectomy was done. Her recovery was uneventful.

History of the Present Illness

The patient had been well till two months previously when she noted that she had low backache and lower abdominal pain. The pain was dull and not colicky. It did not necessitate going to bed and was not associated with menstrual periods. She had no irregular or excessive vaginal bleeding. Her last normal menstrual period started on 1.4.81. She used no contraceptives. She also complained of a lower abdominal swelling which she noticed two months previously. It had increased in size according to the

patient and this worried her. She had no dysuria, urgency or frequency of micturition and her bowel movements were normal.

Gynaecological History:

The patient had menarche at 13 years which was followed by normal three days flow menstrual periods every 28 days. There was no history of pelvic infection or vaginal discharge.

Obstetric History:

She was para 2. The last child was 3 years old.

Medical and Surgical History:

There was nothing significant

Social and Family History:

She was a secretary married to a factory worker. She did not drink alcohol or smoke cigarettes.

Examination:

The patient was seen at the gynaecological clinic when she was examined. She was healthy looking not in pain and not pale. She had no ankle oedema or enlarged lymphnodes anywhere.

Cardiovascular and respiratory System

She had a pulse rate of 80/minute of normal volume. Her Blood Pressure was 110/70 mm mercury. Her heart size and sounds were normal. The Respiratory system was normal.

Abdominal Examination:

The lower abdomen was irregularly distended below the umbilicus. There were no surgical scars. The liver and spleen were not palpable. There was no tender areas. The kidney areas were normal. A cystic tense mass was palpated in the sub umbilical area. It was about 20cm. in diameter and occupied the central area although it seemed to arise from the right iliac fossa. It was freely mobile and non tender.

There was no fluid thrill or shifting dullness elicited in the abdomen.

Vaginal Examination:

Vaginal examination was done as detailed in the introduction. The vulva and vagina were normal. The cervix was closed and firm. The uterus was anteverted normal size and mobile. The left adnexae was normal. There was a large cystic mass in the right adnexae separate from the uterus but which moved on moving the uterus. It was about 20cm in diameter nontender and mobile. The fornices were normal.

Diagnosis:

From the above findings a diagnosis of an Ovarian tumor was made.

The following investigations were made.

Blood:	Haemoglobin	12.5g/dl Normal
	White cell court	Total 7000/dl Normal
		differential
	E.S.R.	4mm/hr
	Urea	25mg %
	Creativine	0.8mg %
Urine -	Microscopy	No pus cells. No casts
	culture	sterile
X-rays-	Chest	Normal
	I.V.P.	Normal

After an explanation had been given to the patient she was admitted to the hospital for laparatomy. Consent was obtained for the operation.

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Pre-operative preparation:

The patient was fasted for 8 hours prior to the operation. Her abdomen was prepared as for laparatomy (see introduction). She was given Pethidine 100mg and atropine sulfate 0.6mg intramuscularly one hour before going to theatre.

Anaesthesia:

She was induced with sodium Thiopentone 250mg intravenously and maintained on nitrous oxide: oxygen 50: 50 mixture 40mg of Succamentonium was given intravenously as muscle relaxant and she was intubated with a cuffed endotracheal tube. Mechanical ventillation was used. The anaesthesia was smooth.

Operative technique:

The abdomen was opened by a lower abdominal median incision (see introduction). A self retaining retractor was placed in the abdomen and the intestines were packed away with gauze packs. The tumor was identified. It was a cystic, well encapsulated tumor with no solid areas. It arose from the right ovary from which it was difficult to separate. The right fallopian tube ran on the superior aspect of the tumor. There were no adhesions. The left ovary and tube looked normal.

Three curved clamps were placed on the infundibulo pelvic fold laterally and using a Mayo's scissors the tissues between the middle and the distal clamp were divided. Other clamps were placed on the fallopian tube and ovarian ligament on the uterine side and similarly divided. Before division of the tissues the ureter on that side had been palpated and found to be clear of the mass. Another clamp was placed on the broad ligament in the region of the mesovarium and the tissues divided. The tumor the distal tube and the rest of the tissues was thus delivered in toto.

Great care was taken in handling the vessesl in the meso-varium to avoid slipping and the subsequent haemorrhage.

The pedicles were ligated using No. I chromic catgut. Two threads were placed around the vessels of the infundibulopelvic fold. No attempt was made to cover the three pedicles left.

Section of the tumor revealed a smooth wall with mucinous fluid. There were no papilla or areas suspicious of malignancy. The rest of the peritoneal cavity was normal so after the gauze count was pronounced correct the abdomen was closed in layers as explained in the introduction.

The anaesthesia was discontinued and the patient sent to the recovery room. The tumor mass was sent for histopathology.

Post Operative Treatment and Progress:

1) Pulse and blood pressure were monitored ½ hourly for six hours then hourly for 24 hours.
2) Intravenous fluids were given and she received 2 litres of 5% Dextrose and 500ml. of Normal saline in 24 hours.
3) She was given Pethidine 100mg for pain intramuscularly as necessary.

The patient was proped up after 12 hours and was up and about by the second postoperative day. She had passed flatus after 24 hours, had a soft abdomen and her Blood Pressure and pulse had remained 110/70mm mercury and 80/minute respectively. She had passed 1800ml. of urine during the 24 hours. She began oral fluids then. The histological report was available on the 5th postoperative day and it revealed a Mucinous cystadenoma with no signs of malignancy. She had stitches removal on the 7th day and was discharged on the 8th day in good condition.

COMMENTS:

Ovarian tumors are common in gynaecological practice. The malignant ones were only second to carcinoma of cervix in Muhimbili Gynaecological cancer admissions in 1979 (1). In som Western countries malignant ovarian cancer ranks first among the lethal cancers (2) while in others (3) they have been ranked fifth among all cancer diseases in women. The incidence of benign ovarian tumors in general population has been rated at 0.5% to 1.1% (3).

The importance of benign ovarian tumors lie in the fact that both benign and malignant varieties have an insidious presentation and may grow very large without Symptoms (3). As a result they may be discovered when the malignant ones are at an advanced stage. Rarely they may present with accidents of the cysts such as torsion, rapture, haemorrhage or malignant transformation (4). For the above reason, when ovarian tumors are discovered active and urgent treatment is essential. Diagnosis is made either by accident during examination for other reasons or when the above symptoms occur. Otherwise when the tumors are large the patient may present with a mass in the abdomen which may be giving her abdominal pain or backpain. This was the case here. The mucinous variety of the epithelial tumors are among the most huge tumors seen (5). They are usually benign but may be or turn malignant.

Surgery is the preferred treatment of ovarian tumors (2) (6) (7). For unilateral benign ovarian tumor a unilateral salpingo-ophorectomy is the procedure of choice except in post menopaused women when bilateral salpingoophorectomy is preferred (7). When

the tumors are bilateral in young patients ablation of the destroyed ovary and partial excision of the less damaged ovary with conservation of some ovarian tissue has been shown to be useful in preserving fertility (8).

Gross inspection of the removed ovary and search of metastasis in the peritoneal cavity is important because if malignancy is suspected then a full thickness biopsy of the opposite apparently normal ovary is essential to rule out concurrent tumor. When there are doubts a frozen section of the removed ovary is adviced (7). If gross inspection of the removed bisected tumor shows papilliferous growths, or there is ascites with malignent cells or spread to the omentum peritoneum or any visera then a modification of the surgery and subsequent chemotherapy or radiotherapy should be the rule.

REFERENCES:

1) H.N. Mgaya and G. Alexander: Treatment of Carcinoma of cervix in Muhimbili Medical Centre: Proceedings of the Annual Scientific Conference of the Association of Gynaecologists and Obstetricians of Tanzania 1979.
Edited by L.A.R. Mtimavalye.

2) Kolstad P, Davy M, Höeg K: Individual treatment of ovarian carcinoma: Am. J. Obstet. Gynaec. 128: 617, 1977

3) Tapani Kauraniemi: Ovarian tumors
Acta Obstet. at Gynaec. Scandinavian 48: 132, 1979.

4) Dewhust C.J.: Intergrated Obstetrics and gynaecology for Postgraduate students 1972 Pg. 654.

5) Gompel G and Silverberg S.G.
Pathology in Gynaecology and Obstetrics Page 308
Second Edition 1977 J.B. Lippincott Company Philadelphia Toronto.

6) Ovarian Tumors
Clinical Obstetrics and Gynaecology 12:4, 1969

7) Howkins J. and Hudson C.N.: Shaws textbook of
Operative Gynaecology Pg. 298: 4th Ed. 1977
Churchil Livingstone - Edinburgh - London.

8) Pitkin R.M. Scott J.R. Late results of Conservative
Operation for bilateral benign ovarian tumor. The
Year Book of Obstetrics and Gynaecology 1978 Pg. 311.

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VESICO VAGINAL FISTULA

SUCCESSFUL REPAIR

Name: Mrs. M.S. Age 15 Years.

Date of Delivery: 30.1.81

Date of Admission: 10.5.81

Date of Operation: 18.5.81

Date of Discharge: 8.7.81

S U M M A R Y :

Mrs. M.S. was admitted to the Gynaecological ward as a referal patient from Mbeya Hospital due to a diagnosed Obstetric Vesico-vaginal fistula. She had been in labour for three days at home where she failed to deliver her full term fetus. She was sent to the hospital by the Traditional Birth Attendant who had failed to help her. She had a vacuum extraction of a dead baby weighing 3.5kg.

Catheterization revealed blood stained urine so she was put on a continuous catheter drainage for 14 days. Seven days post delivery she started leaking urine per vagina and on removal of the catheter on the fourteenth day she developed total true urinary incontinence. Speculum examination had revealed midvaginal vesico vaginal fistula. She was advised on high protein diet, put on iron and folic acid and was referred to Muhimbili Medical Centre for repair. She had a vesico vaginal fistula repair four months post delivery and was discharged eight weeks later with no urinary incontinence she was given advice on coitus and future pregnancies.

History of the present illness:

The patient started leaking urine per vagina 7 days post-delivery. She had been full term pregnant when she developed labour pains in her home 50 miles from Mbeya hospital. She was in labour for 3 days under a Traditional Birth attendant who had encouraged her to push without success. They had used fundal pressure and had given her some sweet juice but delivery could not be effected. No instruments had been used and she was not given any drugs. On the third day she was sent to hospital where she was given intravenous fluids and antibiotics intravenously. The foetal heart rate was not heard. She had a vacuum extraction of a dead baby weighing 3.5kgs. Catheterisation of the bladder revealed a blood stained urine so she was put on continuous bladder catheterisation for 14 days. However, on the 7th day she started leaking urine per vagina and when the catheter was removed on the 14th day she had total true incontinence of urine. There was no voluntary voiding of urine. She did not develop fever or abdominal pain. She had no fecal incontinence; She did not develop perineal sores but had abstained from coitus due to incontinence. She had not seen her menstrual periods.

The doctor in Mbeya had advised her to eat plenty of high protein diet and had supplied her with iron and folic acid tablets. She was visiting the hospital monthly for check up and was referred to Muhimbili Medical Centre on the fourth month for repair of the fistula.

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Gynaecological History:

She had menarche at 14 years which was followed by regular, normal flow menstrual cycles every 30 days and lasting 3 - 4 days. She had no history of vaginal operations or pelvic infection. She had not been on contraceptives.

Obstetric History:

She was a Primigravida

Past Medical and Surgical History:

There was nothing significant.

Social and Family History:

She was one year post menarche, married to a peasant. She neither smoked cigarettes nor drank alcohol.

Examination on Admission at Mpimbili:

The patient was young and in good health she was not pale, was afebrile and had normal gait. She was 145 cm tall.

Respiratory and Cardiovascular System:

She was not dyspnoeic. Her pulse was 70/minute good volume. The blood pressure was 110/70 mm mercury. The heart sounds and size were normal. She had normal breath sounds.

Abdominal Examination:

The abdomen was not distended. There were no surgical scars. There were no areas of tenderness and no abnormal masses were palpable. The liver and spleen were not palpable. The renal areas were not tender and no masses could be palpated. The uterus was not palpable suprapubically.

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Vaginal Examination:

Vaginal examination was done. The patient was first examined while on the full dorsal position. The vulva was inspected and there was no skin excoriation seen. No bed sores were noted. Urine was leaking through the vulva. Digital examination showed no tender swelling in the vulva or vagina. A rent admitting the index finger was felt anteriorly in the midvaginal region. There was minimal scarring in its edges and it was not fixed. The vagina was minimally stenosed. The cervix was felt to be normal and the uterus was anteverted and normal size. The patient was then turned to the left lateral position and a small Sim's speculum inserted in the vagina. This was used to retract the posterior vaginal wall so that the anterior wall could be visualised. A vagina retractor was used to retract the anterior vagina wall to facilitate better identification of the fistula.

A 2cm diameter vesico-vaginal fistula was seen in the mid-vagina with urine continuously pouring into the vagina. No other fistula were seen and there was no patch of granulations noted. The posterior vaginal wall was inspected and no fistula was seen. A rectal examination was done (see G8 for details) and there was no abnormalities detected.

Diagnosis:

With the above history and findings a diagnosis of Obstetric Vesico vaginal fistula was made.

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Investigations:

1) The Haemoglobin was 12.5g/dl.

2) The urine microscopy and culture (urine specimen was obtained from the bladder by a sterile pipette) revealed no abnormality.

3) The Blood Urea was 15mg/dl and Creatinine 0.8mg/dl.

4) Chest X-ray was normal.

5) Intravenous Pyelogram was normal

6) Blood group was ORh positive and she was crossmatched 2 units.

Examination under anaesthesia:

The patient was examined in Lithotomy position under anaesthesia. For anaesthesia Nitrous oxide/oxygen 50:50 mixture was used after Induction with thiopentone 250mg. intravenously. The vulva was normal. The vagina was found to contain a 2cm hole into the bladder in the midvaginal region. There was little scarring of the fistula edges but no fixation to the pelvis. Traction of the cervix and skin around the fistula revealed that it was mobile and easily manipulated at lithotomy position. A metal catheter was passed through the urethra and the later was found to be intact. Lithotomy position was chosen for subsequent repair.

Repair of the fistula:

Pre operatively the patient was informed that she had a good chance of cure. She was informed that after repair she will require two weeks or more of catheterisation during which time she will be required to drink plenty of oral fluids. She was also informed that following the repair she will be required to abstain from coitus for not less than three months and that after wards she will need caesarean section for any future delivery. She consented to the operation. She was starved from 20 hours the previous night and was sent to theatre after premedication with

atropine 0.6mg and 100mg Pethidine intramuscularly.

Anaesthesia:

See G 7 for description.

Operative Technique:

The perineum and vagina was cleaned and prepared as detailed in the introduction. While the patient was in the lithotomy position she was draped with sterile towels except for the field to be operated. Stitches were placed in the labia to retract both labia and open up the introitus. Silk Number 2/0 was placed in the each labia and laterally retracted and to the thigh with a surgical knot. No episiotomy was necessary. Preliminary infiltration with dilute adrenaline solution between the vaginal wall and the bladder around the fistula was done to separate the tissue planes, reduce the amount of bleeding and ease dissection. 50ml of 1:100,000 solution was used.

The bladder was then mobilised by placing traction sutures through the muscle wall of the bladder at the opposite poles of the fistula and using sharp dissection. The fistula was first circumcised by a circular incision with two arms passing upwards and downwards through the vaginal wall. The vaginal wall was then separated by a sharp dissection using sharp pointed scissors and bistoury bladed knife. A fine toothed dissecting forceps was used. The scar in the wall of the vagina around the fistula was excised to completion. The edges of the bladder was trimmed till it was freely mobile and freshly cut. Separation of the vaginal wall

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from the bladder continued until the bladder edges could be brought together without tension.

The bladder wall was no closed by using extrachromic catgut No.00 on atromatic round-bodied curved needle. Interrupted sutures were used which passed through the muscle wall of the bladder not going through the mucous membrane of the bladder. A second layer of interrupted Lembert's suture was introduced to invaginate the first layer. Both these sutures were introduced to lie transversely across the width of the vagina and the second layer picked the under-side of the vaginal wall so as to obliterate any dead space in which a haematoma could form. The vagina was closed with catgut chromic number 0. Broad bites of the vagina were made to embrace the sutures. The vagina was sutured by interrupted suture at right angles to the bladder incision. Two tension releasing incisions were made in the wall of the vagina parallel to the suture line. These were left unsutured.

A folley's catheter with a 10ml. bulb was placed in the bladder to provide continous drainage into a closed sterile bag. The catheter was anchored securely to the labia by a non-absorbable stitch making sure the catheter lies free in the bladder and that the bulb does not exert traction on the bladder wound. The anaesthesia was discontinued, the patient allowed to wake up and she was returned to the ward.

Post Operative Management:

1) The Blood Pressure and Pulse were recorded ½ hourly till she was fully awake thereafter 6 hourly.
2) Urine out-put was recorded hourly.
3) Intravenous fluids were given and she received 3 litres of 5% Dextrose in the first 24 hours thereafter 3 litres of oral fluids were given daily.
4) Observation for vaginal bleeding or blood stained urine was made.
5) Pethidine was given 100mg. as required for pain.
6) Daily urine cultures were done.
7) She was on Sulfadimidine all the time she had an indwelling catheter.

The patient was proped up in the first 24 hours and was turned from side to side 2 hourly to avoid bedsores. Liquid parafin 15 ml twice a day, was given to soften the stools and to avoid straining for stools. The vulva was covered with sterile vaginal pads for the first five days. She produced 2500ml of urine in the first 24 hours and continued to produce 2-2½ litres of urine daily. Urine remained sterile and clear of blood. She did not develope pyrexia or abdominal pain. The catheter was removed on the fourteenth day when there was no leaking of urine. She was offered a bedpan every hour at first then four hourly till the bladder was well trained.

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She was examined vaginally under anaesthesia on the 21st day at lithotomy position. The bladder was filled with Methylene blue and no leakage into the vagina was noted. She was discharged four weeks later with instructions that she abstain from coitus for three months. She was reminded that if she became pregnant later abdominal delivery may be required to avoid a similar catastrophy. She was explained in detail what caused the fistula and was then advised to seek medical help as soon as she became pregnant. She was given a letter back to Mbeya Hospital with the treatment details and follow up advice.

C O M M E N T S:

Urinary fistula is a major clinical problem confronting gynaecological surgeons in developing countries (1). Vesicovaginal fistula is the commonest type (5). When the cause is obstetrical, neglected obstructed labour is easily the commonest cause (1) (2) (3). Of the non obstetrical causes total hysterectomy is a top cause (1) (4) (5). Other obstetrical causes include caesarean section, instrumental deliveries and raptured uterus while the non obstetrical causes range from malignancies, radiotherapy to various pelvic operative procedures. The possibility of vesicovaginal fistula must be suspected in all patients with obstructed labour for any length of time. The suspicion is more when there are signs of trauma to the bladder as evidenced by bloody urine in this patient. In this case prolonged catheterisation was done to keep the bladder dry and facilitate healing. The development of true incontinence of urine in a patient who had obstructed labour points to vesicovaginal fistula as the cause.

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It is recommended that following development of such fistula attempt of repair should not be made until at least three months have elapsed (1) (2). This time is required for the slough to separate, the blood supply to re-establish and tissue plains to re-appear.

It is recommended that this period be used to improve nutritional status, treat residual sepsis and to correct anaemia (2). Similarly any other residual sequellae of obstructed labour e.g. foot drop, should be treated. Although urinary infection is uncommon (2) (3) others (6) have found it in 75% of patients with vesicovaginal fistula.

Intrevenous pyelography should be used to chart out the course of the ureters and where they are not clear retrograde pyelography has been done (6). The renal function should be adequate and pregnancy should be excluded.

Any vulva excoriation should be treated before repair is attempted. An examination under anaesthesia as was done in this patient is mandatory so that one may assess the size of the fistula the amount of scarring and to determine the position of the patient during repair. The approach is decided at this time. Vaginal approach is prefered by many gynaecologists except for very high fistula (2) (5) although others (6) recomend combined suprapubic and vaginal approach for vesico vaginal fistula.

This midvaginal fistula encountered here is not the commonest type in obstructed labour. The juxtaurethral type is the commonest (1) (2). Fortunately it was easy to repair in the first attempt. In fistula repair the law of diminishing returns operate, (3) With each successive repair on the same fistula

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being more difficult.

Others (7) have devised various types of grafts to use in difficult fistulae. These include labial fat, peritoneal flap or omental pedicle, and others have used gracilis muscle as a graft. Recently the use of fibrin clot has been advocated in narrow long difficult fistula (8).

Postoperatively cooperation of the patient in tolerating the catheter and drinking adequate amounts of fluids is very important. That is why this patient was warned preoperatively. Urine output was charted hourly so that any trouble could be detected early and sorted out. The catheter did not block and the urine flow was smooth in this patient. Prolonged catheterisation carries a definite risk of infection, hence the use of prophylactic chemotherapy. This patient was kept in hospital for six weeks after removal of catheter to make sure the healing was sound. She was also re-educated on the importance of avoiding coitus for three months.

With improved antenatal care and spread of modern maternity services obstructed labour and subsequent obstetric vaginal fistula should be rarely seen. Meanwhile perhaps there is something to be said about training of the traditional birth attendant on some aspects of safe practicle midwifery.

REFERENCES

1) Shaws Textbook of Operative Gynaecology Pg. 451
by John Hoking and Christopher N. Hudson
Churchill Livingstone 1977.

2) Obstetrics and Gynaecology in the Tropics
by Lawson J.B. and Stewart D.B.
Edward Anorld Ltd., London.

3) J. Lawson: Vesico Vaginal fistula in the vaginal Vault.
Brit. J. Uro: 44: 623, 1972.

4) Everett H.S., Mattingly R.F. and Baltmore
Vesico Vaginal Fistula.
Am. J. Obstet. Gynecol. 72:712 1956.

5) Counseller V.S., Haigler Jr. P.H. Management of urinary
vaginal fistula in 253, cases.
Am. J. Obstet. Gynecol. 72: 367, 1956.

6) Henriksson C, Kihl B. and Pallerasan S: Urethrovaginal and
Vesicovaginal Fistula: A review of 29 patients Acta Obstet
Gynaecol. Scand. 61: 143, 1982.

7) Warwick R.T.: The use of podicle grafts in the repair of
urinary tract fistula Brit. J.
Uro 44: 644, 1972.

8) Petterson S, Hedelin H, Jonsan I and Teger Wilson A.C.
Fibrin occlusion of a Vesicovaginal fistula
Lancet i: 933, 1979.

THE ROLE OF SEXUALLY TRANSMITTED DISEASE IN THE CAUSATION OF PELVIC INFLAMATORY DISEASE

SUMMARY:

The role of sexually transmitted disease in the causation of pelvic inflamatory disease was investigated. Sixty six patients with pelvic inflamatory disease and eighty eight without pelvic inflamatory disease were seen. After their history and examination had been taken they had endocervical and urethral swabs taken for direct microscopy, Gram stain and culture.

More than 60% of the women with pelvic inflamatory disease had their infection from either a casual meeting with a man or a "regular" partner. Neisseria gonorrhoea was isolated in only 18.6% of the pelvic inflamatory group as compared to 1.7% of the control group. Candida albicans and Trichomonas vaginalis were isolated in 70% of the group compaired to 21% of the control.

Mixed infections were common. There was a large number of women with clinically obvious pelvic infection but no organisms isolated during culture. This high number could be due to mycoplasma organisms. It is suggested that a further study should aim at these organisms.

INTRODUCTION:

Pelvic inflamatory disease is a common cause of admission in Muhimbili Medical Centre. It was a cause of 11.3% of gynaecological admissions in 1979/80 (1). Pelvic inflamatory disease is said to be the main cause of infertility in the female (2) (3) (4). Apart from infertility it is a cause of chronic pelvic pain and menstrual disturbances (5).

The causative organisms of Pelvic inflamatory disease are not known. The significance of sexually transmitted disease in the causation of pelvic inflamatory disease among gynaecological patients is not known. Various workers have expressed concern on the lack of data on the importance of sexually transmitted disease in developing countries (6) (7) (8).

While some workers (6) have found postpubertal gonoccal infection to be common and syphilis not to be uncommon, other (7) have found low prevalence of gonorrhoea Trichomonous vaginalis and candida albicans among family planning attenders.

Data is conflicting regarding the causative organism in Pelvic inflamatory disease. While some workers have implicated Gonorrhoea (9) (10) (11) (12) others (13) have shown that tubo-ovarian massess, abscess pueperal sepsis and postabortal sepsis are mainly caused by anaerobic organisms and have further said that the organisms which predominate in genital tract infection reflect the normal flora and that the cervix is only a portal of entry. More confusing is the fact that others (14) have shown that cultivation of microbial flora from the cervix can not serve as a basis for prediction of which patient's will develope subsequent genital tract infection.

Sexually transmitted disease is common in developing countries (6) (15) and Neisseria gonococcus has been found to be the chief organism found in association with acute pelvic inflamatory disease (11). Sexually transmitted disease constitute a major medical and social problem. Its control is difficult due to the fact that the community in general views the sexually transmitted disease from the moral aspect rather than as a communicable disease (18). Yet 10-17% of women who harbour gonococcal infection develope pelvic inflamatory disease (16), and a large proportion of salpingitis are caused by microbial agents that are transmitted by sexual contact (17).

It is against this background that this study was done. The aim was to find out how much of the pelvic inflamatory disease is caused by sexually transmitted disease by comparing the amount of sexually transmitted disease in patients with pelvic inflamatory disease with those who are not ill.

This is important because it has been shown (18) that a campaign against gonorrhoea and syphilis with prompt diagnosis and effective treatment leads to a decline in the prevalence of pelvic inflamatory disease. If one finds an association between the two then eradication of sexually transmitted disease will be expected to lead to a decline in Pelvic inflamatory disease and its sequellae.

Materials and Methods:

Sixty six patients with pelvic inflamatory diseuse were included in the study. These were patients who had either come for admission due to an acute abdomen which was later judged to be due to pelvic sepsis or they had come to the gynaecological outpatient clinic with symptoms and signs suggestive of pelvic, inflamatory disease. The diagnosis of pelvic inflamatory disease was based on the history of lower abdominal pain with any three of the following:

(1) Tender lower abdomen

(2) Adnexal masses

(3) Tenderness and pain on moving the cervix

(4) Purulent vaginal discharge.

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These patient's were seen immediately on admission or in the gynaecological clinic by the author or by a well informed collegue.

Another group of eighty eight females of comparable age and social class was selected by simple random sampling using random tables (19). These had come to hospital with no symptoms or signs of pelvic inflamatory disease and were selected from among family planning, antenatal and gynaecological outpatient attenders. Their number was limited to 10 per week and they were to act as a control group.

All patient's were questioned concerning their age, parity, marital status and occupation. They were asked about frequency of marital and extramarital sexual contacts and the pelvic inflamatory disease group was asked to guess where they thought the infection came from. Any history of previous episode of pelvic inflamatory disease was noted and a history of vaginal discherge, itching or genital sores was noted.

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A record of any medications was taken. The patients were then examined. The vulva was inspected and any genital sores noted. A Sterile unlubricated cusco's speculum was placed in the vagina and the vagina and cervix were inspected. A sterile cotton swab was inserted into the endocervix and withdrawn. Another sterile swab was placed into the urethra and withdrawn. Both these specimens were immediately placed into a bottle containing Stuart's transport media and transported to the microbiology laboratory within two hours.

The speculum having being removed a bimanual pelvic examination was done. The size, consistency and fixity of the uterus was noted. The adnexae were palpated for masses or tenderness. Any pain on moving the cervix was noted.

In the laboratory a wet smear was directly viewed under the microscope and Trichomonas vaginalis and candida albicans were looked for.

A gram stain was done. Aerobic and anaerobic cultures were done. Culture for Neisseria gonococci was also done. For aerobic culture Blood agar was used and this was incubated at 37°C and read after 24 hours. Culture for gonococci were done using VCNT agar plate with incubation at 37°C in a jar with a candle to provide carbon dioxide. The cultures were read after 48 hours. Anaerobic cultures were done by streaking the specimen on a lysed Blood agar plate, Neomycin blood agar plate and Blood agar plate. These were put in a jar with a gas pack and incubated at 37°C. Reading was done after 24 hours.

Results:

The age distribution of the patients in both groups is shown in table I. About 62% of all the patients in the study group were within the age group 20 - 30 years. A similar number was seen in the control group.

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TABLE I: AGE DISTRIBUTION OF THE PATIENTS:

AGE	NUMBER OF STUDY GROUP SPECIMENS	NUMBER OF CONTROL GROUP SPECIMENS:
15 - 20	30 (22.7%)	28 (15.9%)
21 - 25	60 (45.5%)	60 (34.1%)
26 - 30	22 (16.6%)	54 (30.7%)
31 - 35	18 (13.7%)	26 (14.8%)
- 36	2 (1.5%)	8 (4.5%)
T O T A L	132 (100%)	176 (100%)

Of the patients with pelvic inflamatory disease twenty had an acute illness with a resent onset of severe lower abdominal pain fever of 38°C or more with lower abdominal guarding and rebound tenderness. Forty six patients had subacute or chronic disease with absence of fever but presence of most of the other signs of pelvic inflamation.
Most of the patients with pelvic inflamatory disease in the age group 15 - 20 years were unmarried and unemployed.

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Table II gives the previous history of pelvic inflamatory disease in both groups. This was given as a history of an exactly similar past illness with or without pyrexia which was treated and later subsided.

TABLE II: PREVIOUS HISTORY OF SIMILAR ILLNESS:

CATEGORY OF PATIENTS	NUMBER	%
Acute Pelvic Inflamatory Disease	5	25
Chronic Pelvic Inflamatory disease	46	100
Control group	11	13

All patients in the chronic infection group admitted to having had a similar attack previously and having received treatment in hospital. None of the patients had received any antibiotics in the present attack as these were excluded from the study.

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Table IIIa shows the types of organisms isolated from cultures. Gonococcal organisms were isolated in 18.2% of the study group specimens and 1.7% of the control group specimens. Anaerobic organisms were isolated from 9.1% of the specimens and all were from the chronic infection group. In 57.6% of the specimens no organisms were cultured although the patient had all the signs of pelvic infections with vaginal discharge with pus cells, pelvic tenderness and sometimes associated temperature.

TABLE IIIa: TYPE OF ORGANISMS ISOLATED.

TYPES OF ORGANISMS	STUDY GROUP SPECIMENS			CONTROL GROUP SPECIMENS		
	Cerv.	Ureth.	Tot.	Cerv.	Ureth.	Tot.
Neisseria Gon.	12	12	24	3	0	3
Escherchia Coli	12	0	12	-	-	-
Bhemolytic Strep.	4	4	8	-	-	-
B. fragilis	4	4	8	-	-	-
Anaerobic Strept.	2	2	4	-	-	-
No Organisms	38	38	76	85	88	173
	72	60	132	88	88	176

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Trichomonas vaginalis and Candida albicans were the most common parasites seen 70% of the specimens contained either one or both of these organisms (see table IIIb). Some of the specimens with positive cultures had these parasites isolated on direct microscopy.

TABLE IIIb: PREVALENCE OF TRICHOMONAS VAGINALIS AND CANDIDA ALBICANS :

PARASITE	NUMBER OF STUDY GROUP SPECIMEN			NUMBER OF CONTROL GROUP SPECIMEN		
	Cerv.	Ureth.	Tot.	Cerv.	Ureth.	Tot.
Trichomonas Vag.	30	30	60	10	10	20
Candida albicans	20	0	20	12	0	12
Both. T. vaginals and C. albicans	12	0	12	6	0	6
	62	+ 30 =	92	28	+ 10 =	38

The Probable source of infection is shown in table IV 42 (76.4%) of the patient inteviewed admitted to having had the infection either from the spouse or from a regular partner. Only 12 (22%) of them said they had contacted disease from a casual acquitance with a man.

TABLE IV:SOURCE OF INFECTION:

SOURCE	NUMBER OF PATIENTS	%
1) Spouse	20	36.4
2) Regular Partner	22)	40.0
3) Casual	12)	21.8
4) Unknown	1)	1.8
T O T A L	55	100

DISCUSSION:

The problems of diagnosis in pelvic inflamatory disease are well known. It has been shown that only 64% of those diagnosed as having pelvic inflamatory disease clinically actually have the disease. (26) Moberg et al (14) has shown that the organisms isolated from the cervix are not necessarily the causative organisms. Thedepalli et al (13) states that the organisms isolated reflect the normal microbial flora. Yet there is widespread view by others that gonorrhoea is the central cause (9)(10) (11) (12) and others (17) have stated that a large proportion

of salpingitis are caused by microbial agents that are transmitted by sexual intercourse.

Efforts to isolate gonorrhoea organisms from cervical cultures in women with acute salpingitis have yielded results between 33-51% positive (20). While isolation from the non pelvic inflamatory disease group reported prevalence of gonorrhoea between 2 - 5.2% (21) (22) (23). Gonorrhoea complications are recognised as a major cause of pelvic sepsis and infertility (4). The lower rates of gonorrhoea isolated, 18.2% in the study group is probably due to the fact that there were more patients with chronic infection than with acute Pelvic inflamatory disease. Nilson et al (27) has shown that with acute infection recovery of organisms is high and recovery rate falls with severity and that low isolation could be due to chronicity. It has been suggested that the incidence of gonorrhoea isolation is inversely proportional to the number of previous pelvic inflamatory disease attacks (24) (25).

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The other sexually transmitted diseases found in these patients were Trichomona vaginalis and Candida albicans. There were found more in the study group than the control group although others (27) have found equal prevalence of Trichomona vaginalis and Candida albicans in both groups. Van Binsbergen (28) has found candida albicans and Trichomona vaginalis the commonest organisms in abnormal vaginal discharge.

The age distribution of the study group is in agreement with others and falls between 15 - 30 62% of them were between 20 - 30 and 23% were below 20. The later group comprised the unmarried, unemployed group who attributed their disease to either casual contact with a man or a regular partner. They are also the group with the highest possibility of having multiple sexual partners. Those who had a previous episode of infection constituted the majority confirming the belief that pelvic inflamatory disease predisposes to pelvic inflamatory disease (25).

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The high number of apparently ill women but without organism isolated is disturbing. Evidence has accumulated that more than 50% of pelvic inflamatory disease in women less than 25 years of age is caused by Clamydia trachomatis and Mycoplasma hominis and together with Gonorrhoea they account for more than 75% of PID in these women (17).
The large number of patients with no organisms could probably be due to mycoplasma and Clamydia. Isolation of Clamydie trachomatis and Mycoplasma hominis was not attempted due to lack of facilities. Hilton et al (29) has shown that Clamydia is sexually transmmited and Mardh et al (30) reported acute salpingitis due to clamydia by isolating the organisms from the infection site and finding high titres of compliment fixing antibody. Westrom et al (31) has also reported acute salpingitis where Mycoplasma hominis were implicated. Curran (32) has stated that pelvic inflamatory disease in women is the most common serious complication of infection caused by sexually transmitted pathogen - Neisseria gonorrhoea and clamydia trachomatis and that careful

diagnosis and management of patients with pelvic inflamatory disease and prevention and early treatment of sexually transmitted disease (gonorrhoea and Clamydia) could reduce the occurance of Pelvic inflamatory disease and improve the prognosis of patients with this disorder.

CONCLUSIONS AND RECOMENDATIONS:

The disagreement on the role of gonorrhoea in the pathogenesis of pelvic inflamatory disease continues. While some regard it as the main organism concerned others regard it as just an initiator, paving way for other potential pathogens. Neisserie gonorrhoea is certainly an important aetiological agent contributing to 18.2% of the cases in this study. Sexually transmitted diseases are prevalent as evidence by the high numbers of Trichomonas vaginalis and Candida albicans. Sexually transmitted disease therefore contributes to the causation of pelvic inflamatory disease although to what extent we do not yet know.

There is a relatively new group of sexually transmitted pathogens emerging as an important cause of pelvic inflamatory disease. There is a need to look for clamydia and mycoplasma especially in all patients where no other organisms are cultured.

REFERENCES:

1) Annual Report 1979/80: Obstetrics and Gynaecology department Muhimbili Medical Centre. Edit. L. A. R. Mtimavalye.

2) Mathews T., Mati J. K. G., Fomulu J. N.: A study of Infertility in Kenya: Results of the infertile couple in Nairobi East Afr. Med. J. 58: (No. 4): 288, 1981.

3) Mati J. K. G., Anderson G. E. Carty M.J., and McGlashan H. E.
A second look into the problem of Primary infertility in Kenya East Afr. Med. J. 50: 94, 1973.

4) Walton S. M. Mati J.K.G.: An evaluation of secondary infertility in Kenya: East Afr. Med. J. 53: 310, 1976.

5) Geffcoate: Principles of Gynaecology London Butterworths & Co. Ltd., 1967.

6) Sogbenin A. O., Alanse K. O., Osobe A.O. Sexually transmitted disease in Ibadan Nigeria Brit. Vener Dis. 153: 155, 1977.

7) Meheus A, Friedman F, VanDyck E and Guyver T: Genital infections in Prenates and Family Planning attenders in Swaziland East Afr. Med. J. 57; 1: 1980.

8) Duncan M. E. Perine P. L. and Krause D.W. Pelvic infection caused by Salmonella typhi East Afr. Med. J. 58: 703, 1981.

9) Chow A. W. Malkasain K. C. Marshall J. R. and Guze L. B. The Bacteriology of Acute P. I. D. Am. J. Obstet. Gynaecol. 122: 876, 1975.

10) British J. Obstetrics and Gynaecology 1980 87, 846 Infections with anaerobic in Obstetric and Gynaecology.

11) Carty M. J. Nzioky J. M. Vargihagen A.R., and Megkshan H. E. The role of Gonococcus in acute Pelvic Inflamatory disease in Nairobi East Afr. Med. J. 49: 376, 1972.

12) Arya O. P. Taber S. R. Nsanze H; Gonorrhoea and female fertility in rural Uganda Am. J. Obstet. Gynaecol. 138: 929, 1980.

.../288.

13) Thedepalli I. T. Gorbach S, and Keith L. Anaerobic infections of the female genital tract. Am. J. Obstet. Gynaec. 117, 1034: 1973.

14) Morbeg P. J. Eneroth P, Harkm J. and Asalyung and Nord C. E: Preopertative cervical microbial flora and postabortal infection: Acta Obstet. Gynaecol. Scand. 57, 415, 1978.

15) Arya O. P. Phillips I. Antibiotic Sensitivity of gonococci and treatment of Gonorrhoea in Uganda: Brit. J. Vener: Dis. 46: 149, 1970.

16) Ratmam A. V. Din S. N. Chatterjee T. K. Gonococcal infection in women with PID in Lusaka - Zambia. Am. J. Obstet. Gynaecol. 138: 965, 1980.

17) Westrom L: Incidence, Prevalence and trends of acute PID and its consequences in industrialised countries: Am. J. Obstet. Gynaecol. 138: 880, 1980.

18) Henderson: Control of sexually transmitted disease in USA A federal perspective: Brit. J. Vener Dis. 153: 211, 1978.

19) Fisher R. A. and Yates F: Statistical tables for Biological, Agricultural and Medical research. Oliver Boyd Edinburg 6th Ed. 1963.

20) Eschenbach D.A. and Holmes K. K. Acute P. I. D. current concepts Clinic Obstet. Gynaec. 18: 35, 1975.

21) Osoba A. O., Onifade A, Alanseko: Genital Infections and reproductive failure in developing countries. W. Afr. Med. J. 5: 401, 1975.

22) Onifade A, and Osoba A. O: Screening for STD among women attending gynaecological clinics in developing countries. Paper presented to UUVDT meeting leeds June 1978.

23. Weissenberger R, Robertson A, Hollands S and Hall W: Incidence of gonorrhoea in Urban Rhodesian black women S. Afr. Med. J. 52: 119, 1977.

24) Sweet R. L. Draper D. L. and Hadley W.K. Etiology of Acute Salpingitism Influence of episode number and duration of symptoms: Obstet. Gynaec. 58: 62,1981.

25) Eschenbach D. A. Acute PID: Actiology, risk factors and pathogenesis: Clinic Obstet. Gynaec. 19: 147, 1976.

26) Jacobson L. and Westrom L, Objectivised diagnosis of acute PID: Am. J. Obstet. Gynaec. 105: 1088, 1969.

27) Nilson C. G., Vartiainen E and Widholm O: Bacterial cultures from intrauterine contraceptive device removed in patients with Pelvic Inflamatory disease Acta Obstet. Gynaec. Scand 60: 563, 1981.

28) Van Binsbergen J. J. Schulpen T.W.J., Patel S.C. and Van Binsbergen Ingelse A: Urethral or vaginal discharge at a rural hospital in Kenya East Afr. Med. J. 57: 540, 1980.

..../291.

29) Hilton A. L., Richmond S. J. Milne D.J. Hindley F and Clarke S.K. R. Clamydia A in female's genital tract Brit. J. Vener dis. 50: 1, 1974.

30) Mardh P. A. Ripat Sivensson L and Wenstrom L Clamydia trachometis in patients with acute Salpingitis New Eng. J. Med. 296: 1377. 1977.

31) Wenstrom L and Mardh P. A. Tubal and cervical cultures in acute salpingitis with special reference to mycoplasma hominis and T. strain mycoplasma. Brit. J. Vener Dis. 46: 187, 1970.

32) Currain J. W. Economic consequences of PID in USA Am. J. Obstet. Gynaec. 138: 348, 1980.