ABSTRACT

Two new arabinofuranosidetridecanol, namely 1,2-tridecanediol-1-*O*-α-L-5'-acetylarabinofuranoside (1) and 1,2-tridecanediol-1-*O*-α-L-arabinofuranoside (2) together with known compound, 1,2-tridecanediol (3) were isolated from *Commiphora merkeri* exudate. Compound 1 showed larvicidal activity against *Ae. aegypti* (LC_{50} = 40.66 µg/mL), *An. gambiae* (LC_{50} = 22.86 µg/mL) and *Cx. quinquefasciatus* (LC_{50} = 15.88 µg/mL). Also, Compound 2 had larvicidal activity against *Ae. aegypti* (LC_{50} = 33.79 µg/mL), *An. gambiae* (LC_{50} = 31.99 µg/mL) and *Cx. quinquefasciatus* (LC_{50} = 17.70 µg/mL). There were no significant difference of larvae mortalities (≥ 95%) among the two compounds and among mosquito species except for compound 2 at 72 h for *Cx. quinquefasciatus* and *An. gambiae*. Compound 3 was not larvicidal active even after 72 h of exposure time. In addition, none of the compound was cytotoxic to brine shrimps. The two Arabinofuranosidetridecanol are potential against mosquito species and they could be safe in the environment.

Keywords: Ae. aegypti; An. gambiae and Cx. quinquefasciatus; Commiphora merkeri; brine shrimp; mosquito larvae; spectroscopic analyses.