

Biological activities of four Melicope species

ABSTRACT

The leaves and stem barks extracts of four plant species, *Melicope confusa*, *M. clemensiae*, *M. lunu-ankenda* and *M. latifolia* were screened for their antimicrobial, antioxidant and cytotoxic activities. Almost all extracts of *M. clemensiae* exhibited moderate growth inhibition when tested against the three pathogenic fungi. However, when tested against pathogenic bacteria, the three leaves extracts showed strong activity against methicillin resistant *S. aureus* and moderate for the other bacteria. In the antioxidant assay by using DPPH, the three leaves extracts of *M. lunu-ankenda* exhibited significant activity with with IC₅₀ values of 7.8, 15.6 and 7.8 µg/mL. In addition, the petroleum ether leaves extract of *M. clemensiae* and the chloroform leaves extract of *M. lunu-ankenda* showed strong cytotoxic activity when tested against human promyelocytic leukemia (HL60) cell line with IC₅₀ values of 2.8 and 0.8 µg/mL, respectively.

Keyword: Antioxidant antimicrobial; Cytotoxic; *M. clemensiae*; *M. lunu-ankenda*; *M. latifolia*; *Melicope-confusa*