

ABSTRACT

Stem, leaves and seeds of *Loranthus pulverulentus* were extracted in methanol-water (90:10) and partitioned with n-hexane, chloroform, ethyl acetate and n-butanol successively using partition chromatography. Total phenolic contents of all extracts were determined, using Folin–Ciocalteu reagent, and ranged between 151±2.1 to 396±1.6 for bark stem, 137±0.9 to 430±2.2 for leaves and 39±0.6 to 231±1.7 for seeds. The antioxidant potential of extracts was evaluated viz; DPPH, FRAP, ABTS and total antioxidant models. Interestingly ethyl acetate extract stem, leaves and seeds showed highest activity in DPPH (94±2.1%, 96.30±0.9 and 92.30±1.1, IC₅₀ 15.86±0.5 µg, 14.5±0.8 and 102.7±1.3 respectively) FRAP (7.7±0.6, 7.5±0.7 and 6.6±0.7 respectively) and total antioxidant (0.95±0.09, 1.19±0.09 and 0.686±0.08 respectively). Strong correlations were observed between total phenols, total antioxidant activity, DPPH and FRAP with R² values ranged from 0.8185 – 0.9951 for bark, 0.7486 – 0.8845 for leaves and 0.8861 – 0.977 for seed extracts. The results of the antimicrobial activity showed that the leaf and bark extracts have very good antimicrobial activity against *Escherichia coli*, *Streptococcus thermophilus* and *Bacillus subtilis*. The ethyl acetate extracts of bark (LBE) and leaves (LLE) showed a very remarkable antimicrobial activity against *Streptococcus thermophilus* (25mm, and 22mm respectively), *Bacillus subtilis* (25mm and 30mm respectively) and *Escherichia coli* (22mm and 23mm respectively) while the same fraction in seeds also gave promising results with 18mm and 20 mm zone of inhibition against *Streptococcus thermophilus* and *Escherichia coli* respectively. The hexane extracts showed little activity against the four selected strains. The GC-MS analysis of the hexane fraction of bark stem showed that Fluoroatropine (45.85%) and Scopolamine (36.07%) were the major components, while 2,3-Dihydro coumaran (25.65%), Hexyl vanillate (20.29%) were among the major components of leaves hexane fraction and Flouratropine (85.03%) was the major component of hexane fraction of seeds.