ABSTRACT

The fresh leaves of Microglossa pyrifolia , Asteraceae (7.5 kg) were extracted by successive dipping into fresh portions of ethyl acetate for short periods (less than or ca. 15 s) to yield (180 g, 2.4% of dry leaf) of yellow concentrate. The crude extr act was found to have IC50 of 8.0 ε g/ml against P.falciparum D6 strain and 13.0 ε g/ml against W2. A portion of the crude extract (150 g) was subjected to column chromatography on silica gel (1500 g) eluting with mixtures of n - hexane/CH 2 Cl 2 and then with CH 2 Cl 2 /MeOH in increasing polarities. A total of seven compounds (two diterpenoids and five fl avonoids),whose structures were determined using NMR (1H, 13C, COSY, HMQC , and HMBC) and EIMS as 5,7,4 - trihydro xy - 3,8,3 - t rimethoxyflavone (1), 5, 7, 4 - trihydroxy - 3, 8, 3, 5 - tetramethoxyflavone (2), 5,3,4 - trihydroxy - 7 - methoxyflavanone (3), 5,7,3 - trihydroxy - 8,4,5 - trimethoxyflavone (4), 5, 3, 4 - Trihydroxy - 3, 7, 8 - trimethoxyflavone (5) 8 - acetoxyisochiliolide lactone (6) and 7, 8 - epoxyisocholiolide lactone (7); out of the se 2,4 and 6 were new to literature. Tests with DPPH showed that antioxidant activity was e xhibited by 1 with IC50 of 6.2 ε g/ml. Compound 6 exhibited modest in vitro antileishmanial activity with IC 50 value of 13.13 mg/mL against the growth of Leish mania d onovanii promastigotes