ABSTRACT

In continuation of a search for new antiprotozoal agents from plants of the family Asteraceae, *Tarchonanthus camphoratus* and *Schkuhria pinnata* have been investigated. By following the promising in vitro activity of the dichloromethane extracts from their aerial parts, bioassay-guided chromatographic isolation yielded two known sesquiterpene lactones (**1** and **2**) from *T. camphoratus* and 20 known compounds of this type from *S. pinnata*. From the latter, a new eudesmanolide, (1*R**,5*S**,6*R**,7*R**,8*R**,10*R**)-1-hydroxy-8-[5″-hydroxy-4′-(2″-hydroxyisovaleroyloxy)tigloyloxy]-3-oxoeudesma-11(13)-en-6,12-olide (**3**), and two new germacranolides, 3β-(2″-hydroxyisovaleroyloxy)-8β-(3-furoyloxy)costunolide (**14**) and 1(10)-epoxy-3β-hydroxy-8β-[5′-hydroxy-4′-(2″-hydroxyisovaleroyloxy)tigloyloxy]costunolide (**16**), were obtained. Additionally, the flavonoid pectolinarigenin (**24**) and 3-hydroxy-4,5-dimethoxybenzenepropanol (**25**) were also isolated from *S. pinnata*. The compounds were characterized by analysis of 1D and 2D NMR spectroscopic and HR/MS data. In vitro antitrypanosomal activity and cytotoxicity against mammalian cells (L6 cell line) were evaluated for all the compounds. Santhemoidin A (**13**) and 3β-(2″-hydroxyisovaleroyloxy)-8β-(3-furoyloxy)costunolide (**14**) were the most active compounds found in this study, with IC_{50} values of 0.10 and 0.13 μM against *Trypanosoma brucei rhodesiense* trypomastigotes and selectivity indices of 20.5 and 29.7, respectively.