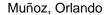
Chemical study and anti-inflammatory, analgesic and antioxidant activities of the leaves of Aristotelia chilensis (Mol.) Stuntz, Elaeocarpaceae



Christen, Philippe

Cretton, Sylvian

Backhouse, Nadine

Torres, Vanessa

Correa, Olosmira

Costa, Edda

Miranda, Hugo

Delporte, Carla

Objectives Aristotelia chilensis leaves (Elaeocarpaceae) are used in Chilean folk medicine to treat pain and inflammation. A bioguided study was carried out on serial extracts (hexane, dichloromethane, methanol, aqueous extract (INFU) and a crude mixture of alkaloids (ALK-MIX). All extracts were evaluated for (1) topical administration against both arachidonic acid and 12-deoxyphorbol-13-decanoate (TPA)-induced inflammation in mice and (2) per-os administration against inflammation by ?-carrageenan-induced paw oedema in guinea-pigs and (3) topical analgesia in tail flick and formalin models and per-os writhing test in mice. Methods Greater anti-inflammatory effects were obtained against TPA with dichloromethane extract and methanol extract (63.9 and 66.0%, respectively). INFU showed the most potent effect (56.2%) against arachidonic acid. Greater effects were obtained in the writhing test with hexane and dichloromethane extracts (89.2% both). In the topical analgesia models, all the ex