A047 Antinflammatory and analgesic activities of a butanol extract of *Balanites aegyptiaca* (L) Del. in experimental animals

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Balanites aegyptiaca (L) Del. is widely distributed along the tropical belt of Africa. The tree has many folk uses in various African countries.The aqueous extract of bark is traditionally used as anti-jaundice, while the one of fruit mesocarps is administered as oral hypoglycemic drug.
The aim of this work was to evaluate the anti-inflammatory activity of methanol (ME) and butanol (BE) extracts obtained from *B. aegyptiaca* bark. The study was carried out using two different animal models: the carrageninn–induced edema, in the rat, and acetic acid-induced writhing test in mice. The extracts, suspended in carboxymethylcellulose, were intragastrically administered to animals, fasted for 12 h before the experiment, at 200 and 400 mg/kg.
The results obtained demonstrate that both ME or BE extracts have a significant effect at higher dose on the number of abdominal writhes induced by acetic acid, with a 38 and 54 % inhibition respectively, no significant difference was observed at lower dose, compared with control animals. The same extracts exhibit a significant reduction on the rat paw edema. The inhibition produced by ME is about the same (28 % lower dose, 32 % higher dose) after the two doses administered. A more evident effect is obtained by BE oral administration (40 % and 57 % respectively). The histological sections of rat paw confirm the antiphlogistic activity of the plant extracts. The antiedematogenic and the antinociceptive effects suggest the presence in the extract of some active compounds. As the plant is known for its saponin content, these compounds could be responsible of the pharmacological activity evaluated.

A048 A preliminary study on the anti-inflammatory activity of *Chuquiraga spinosa* (Asteraceae)

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Chuquiraga spinosa (R. et P.) D. Dou is a medicinal plant originating from Peru. The whole plant is used in traditional medicine as anti-inflammatory agent. The aim of the present work is to investigate the potential anti-inflammatory activity and the phytochemical composition of the 50% ethanolic extract.
The anti-inflammatory activity has been investigated in two experimental *in vivo* models. The carrageenan-induced rat paw edema was chosen as a model for general inflammation. The mice ear edema test using tetradecanoylphorbol acetate as inflammatory agent was chosen as a model for topical inflammation. Indomethacin was used as reference drug in both models: 10 mg/Kg (p.o) in general inflammation and 0.5 mg/ear in topical inflammation. Ethanolic extract of *C. spinosa* were used in dose of 500 mg/kg (p.o) in the general model, and in dose of 2.5 mg/mouse ear (six times) in the topical model. A pre-treatment by extract in a dose of 500 mg/kg (p.o) significantly reduced the edema 2 and 3 hours after carragenin injection in comparison with the control (respectively 52,55% and 45,45%). *C. spinosa* induced an 88.09% reduction in the TPA edema, the anti-inflammatory effect of the extract was higher than indomethacin (74,83%).
A qualitative reversed-phase HPLC method has been developed for the analysis and characterisation of the 50% ethanolic extract of *C. spinosa* (Asteraceae) whole plant. The method enables separation of the main constituents: flavonoids and caffeic acid derivatives.