A045 Devil's Claw root: pharmacological study in horses

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Various researches have described anti-inflammatory activity of aqueous extracts of Devil's Claw root (*Harpagophytum procumbens* DC) (1, 2), drug widely used in South African folk medicine. In this study we have isolated and quantified harpagoside (3), the responsible molecule of anti-inflammatory and analgesic activity and then we have used it as drug for treatment of muscular and bone diseases in horses. We have standardized aqueous extract detecting glycoiridoids as harpagoside using spectrophotometric method (4): this value was 2.7%. Harpagoside was determined by HPLC even and was identified comparing RT with pure standard one. A *H. procumbens* preparation was tested in the treatment of degeneration of the proximal intertarsal, distal interdistal, tarso-metatarsal joint and in the treatment of muscular disorders in 10 race horses (group a), in comparison with a control group of 10 horses treated with phenylbutazone (5). Treatment was carried out for 60 days (3 cycles of 20 days) and the animals were monitored regularly for 90 days. Normal dose was established in 0.5 mg/Kg. The weight of animals were 350/500 Kg, while the age 4/23 years. Both groups were equally divided in male and female. The valuation of analgesic and anti-inflammatory effects was performed using following tests: test of flexion of hock, irregularity of pace along a circular way and valuation of unilateral lameness of left or right leg in trot along a streight on way. In the group a, 6 horses have showed a marked improvement of symptoms on control group, 2 horses a partial improvement, while only 2 horses have showed no improvement. It is concluded that *H. procumbens* preparation is an alternative to the use of phenylbutazone in treatment of bone spavin and muscular disorders in horses, specially in chronic treatment, because phenylbutazone presents high toxicity, in particular for stomach, in long time treatment.

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A046 Flavonoids from *Opuntia dillenii* (Ker-Gawl) Haw. flowers

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Opuntia dillenii (Ker-Gawl) Haw growing in Egypt is used in folk medicine as antidiabetic and anti-inflammatory. The study of the anti-inflammatory activity of the alcoholic extracts of the flower, fruit, and stem was carried out using the carrageenan induced edema model according to Winter et al (1). The analgesic effect of the same extracts was evaluated using electric current as anoxious stimulus according to Charlier et al (2). The alcoholic extract of the flower revealed the most potent anti-inflammatory and analgesic action at a dose of 200 mg/Kg. Bioassay guided fractionation of this extract using VLC followed by Sephadex and paper chromatography, afforded two potent fractions. Fraction 1, eluted with 3% methanol in ethyl acetate, gave compounds 1 and 2, and fraction 2, eluted with 8.5% methanol in ethyl acetate, gave compound 3. These compounds were isolated for the first time from the plant. The three compounds were identified as isorhamnetin-3-O-glucoside, kaempferol-3-O-glucoside and isorhamnetin-3-O-rutinoside based on spectroscopic data (U.V, ^{1}H-NMR and ^{13}C-NMR) and its comparison with the published literature (3,4,5).

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