A135 The relationship between the antidepressant and the analgesic effect of *Hypericum perforatum*

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Several studies have demonstrated that *Hypericum perforatum* (HP) extracts have antidepressant (AD) effects in humans. Some studies claim that HP inhibits the reuptake of NA and 5-HT (1). Tricyclic and some atypical AD including SSRIs have been clinically and experimentally shown to elicit an effective analgesic effect. It is now accepted that at least in some cases the analgesic effect is not correlated with the AD one (2). The antinociceptive effect of HP has been explored in experimental pain models with different stimulus. Most of the nociceptive tests do not explore, however, the affective dimension of pain (3). The aim of the present study was to investigate the antinociceptive effect of HP dry extract 0.3 % hypericins in an experimental model closely related with persistent human pain and to explore its relationship with the possible modification of the affective dimension of pain induced through its AD effect.

Experiments were carried out in male Wistar rats (200-250 g, n=8). HP (50, 150 and 300 mg/Kg/day) was administered orally twice a day for 30 days. Forced Swimming Test (FST) was performed as a model of depression at days 15 and 30 of treatment. Formalin test was performed as a pain model after 30 days of treatment.

FST: At day 15, HP (50, 150 and 300 mg/Kg) induced a non-significant decrease in the immobility (HP50=63.75±17.07; HP150=65.50±14.34; HP300=69.86±16.85 vs SS=95.75±17.82). At day 30, HP 150 mg/Kg induced a significant decrease of immobility (HP150=43.29±17.19 vs SS=119.75±19.97; $p<0.05$), while HP 50 and 300 induced a non-significant decrease of the immobility (HP50=87.38±13.86; HP300=75.14±19.91 vs SS=119.75±19.97).

HP has no effect in the phase 1 of the formalin test. However, HP induced a decrease of the number of flinches in a dose-related manner in phase 2. HP 50 mg/Kg induced a non-significant decrease (14.94%), HP 150 and 300 mg/Kg induced a significant decrease of flinches (34.18% and 49.52%, respectively) compared to saline and HP 50.

The main conclusion of this study is that HP has AD as well as analgesic effects. A relationship between these two effects was not so clear, suggesting that HP has analgesic effect "per se" that is independent of the AD effect.

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A136 Preliminary screening of the neuropharmacological activity of *Nigella sativa* L. extracts

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The seeds of *Nigella sativa* L., an annual Ranunculaceae herbaceous plant have been used traditionally for centuries in the middle East, Northern Africa, far East and Asia for the treatment of asthma (1), as an anti-tumour agent (2-4), bactericide (5,6), antiinflammatory (7,8) and analgesic (9).

Thus, pharmacological studies have been conducted with the aqueous and methanolic extract of *Nigella sativa* L. seeds (1.25 g dried plant/kg weight) to evaluate their effects on the central nervous system (CNS) and its analgesic activity. We have tested spontaneous motor activity, motor coordination, exploratory conduct and body temperature in respect to CNS. The analgesic activity was evaluated using the hot-plate test and pressure test. The observations suggest that the two extracts of *N. sativa* produced an alteration in the general behaviour patterns; significant reduction of spontaneous motility, reduction in normal body temperature, significant decrease in exploratory conduct in the mice, decreasing effect on motor coordination and significant analgesic action in the hot-plate and pressure tests. The methanol extract showed an increasing in the analgesic activity, reaching its maximum effect at 180 min after the i.p. administration (54.1%). While, the aqueous extract recorded its maximum effect at 60 min from time administration (49.3%). All of the above findings suggest both extracts have a potent central nervous system depressant and analgesic activity.

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