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论著

小补心汤总黄酮对强迫游泳和获得性无助模型动物的抗抑郁作用

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摘要 目的 小补心汤（XBXT）由代赭石、旋覆花、竹叶和淡豆豉4味中药组成，文献记载其有缓解抑郁情绪的作用。本实验研究其总黄酮提取物（XBXT-2）是否具有抗抑郁作用。方法 采用大、小鼠强迫游泳模型和大鼠获得性无助模型观察XBXT-2的抗抑郁作用，采用酶联免疫法检测获得性无助大鼠血清皮质酮水平，并观察XBXT-2对小鼠自发活动的影响。结果 单次灌胃给予XBXT-2 50和100 mg·kg^{-1}可以显著缩短小鼠和大鼠强迫游泳的不动时间。连续4 d灌胃给予XBXT-2 25和50 mg·kg^{-1}可以显著减少获得性无助模型大鼠的逃避失败次数，并显著降低其血清皮质酮水平。XBXT-2 50~200 mg·kg^{-1}对正常小鼠的自发活动性无明显影响。结论 XBXT-2在抑郁动物模型上具有抗抑郁样作用，其机制可能与其抑制下丘脑-垂体-肾上腺轴功能亢进有关。

关键词 小补心汤 抗抑郁药 黄酮类 行为,动物

分类号 R971.43

Antidepressant effect of total flavonoids extracted from Xiaobuxin Tang in forced swimming tests and learned helplessness in rats and mice

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Abstract

AIM Xiaobuxin-Tang (XBXT) is a traditional Chinese herbal decoction which is composed of Haematitum, Flos Inulae, Folium Phyllostachydis Henonis and Semen Sojae Preparatum. The present study was to investigate if the total flavonoids extracted from XBXT (XBXT-2) had antidepressant effect. **METHODS** Forced swimming tests in mice and rats, and learned helplessness (LH) model of rats were adopted to affirm the antidepressant effect of XBXT-2 with the test on spontaneous motor activity. Plasma corticosterone level in the LH rats was measured with ELISA. **RESULTS** Single administraton of XBXT-2 at the doses of 50 and 100 mg·kg^{-1} (ig) significantly decreased the duration of immobility time in the forced swimming tests in mice and rats. Researches on LH model of rats indicated that XBXT-2 at doses of 50 and 25 mg·kg^{-1} markedly reduced the number of escape failure in shuttle box. Meanwhile, the plasma corticosterone level of the LH rats was significantly decreased. XBXT-2 50-200 mg·kg^{-1} had no effects on spontaneous motor activity in mice. **CONCLUSION** XBXT-2 possesses significant antidepressant-like effect. The mechanism may involve the inhibition of the hyperaction of the hypothalamic-pituitary-adrenal axis.

Key words Xiaobuxin-Tang antidepressive agents flavonoids behavior、animal

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