

原 著

ラット疼痛モデルを用いた釣藤鈎の鎮痛作用

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要旨：抑肝散は元来、小児の熱性痙攣、てんかん、不眠症、小児疳症、神経過敏症などに用いられてきた漢方方剤であるが、近年、疼痛性疾患に対する有効性が数多く報告されている。本研究では、抑肝散の鎮痛作用の機序を調べる上で、急性炎症性疼痛モデルならびに神経障害性疼痛モデルラットを作製し、抑肝散の構成生薬のひとつである釣藤鈎の鎮痛効果の検討を行った。急性炎症性疼痛は、後肢足底部への5%ホルマリン(50μl)の皮下注射により誘発した。釣藤鈎の前投与により、疼痛行動(足を舐める時間)が有意に抑制された。神経障害性疼痛モデルは、坐骨神経の絞扼性神経損傷モデルを用い、釣藤鈎を2週間投与したところ、熱刺激ならびに機械的刺激に対する疼痛閾値の低下が有意に抑制された。本研究より釣藤鈎は鎮痛作用を有し、抑肝散の鎮痛作用に関与していると考えられる。

索引用語：釣藤鈎、鎮痛作用、慢性炎症性疼痛、神経障害性疼痛

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Evaluation of the antinociceptive effect of *Uncaria rhynchophylla* (chotoko) in ratMasataka SUNAGAWA^{*1}, Rei TAKAHASHI^{*1}, Hideshi IKEMOTO^{*1},
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Abstract: Objective: Several recent clinical reports have demonstrated that the yokukansan is effective for patients with postherpetic neuralgia, central pain, complex regional pain syndrome and trigeminal neuralgia. The aim of this study was to investigate the antinociceptive effects of *Uncaria rhynchophylla* (chotoko), a component of yokukansan.

Methods and Results: 1) Acute study using formalin-induced pain model in rats. Fifty μl of a 5% formalin solution was injected into the right hind paws and the time spent licking the injected paw was recorded. The pre-administration of chotoko resulted in a decrease in the licking time. 2) Chronic study using the chronic constriction injury (CCI) model in rats. Two weeks after the operation, a decrease in the pain threshold was confirmed, and then chotoko had been administered for two weeks. Four weeks after the operation, the decrease in the pain threshold was improved with the administration of chotoko.

Conclusions: We concluded that chotoko had an antinociceptive effect and might contribute to the antinociceptive effect of yokukansan.

Key words: *Uncaria rhynchophylla*, antinociceptive effect, acute inflammatory pain, neuropathic pain

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