

## 加味四逆散对慢性心理性应激胃溃疡模型大鼠胃黏膜的保护作用

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**中文摘要:**目的:建立大鼠慢性心理性应激胃溃疡模型,观察加味四逆散(JWSNS)对模型大鼠胃黏膜形态、血浆促肾上腺皮质激素(ACTH)、血清皮质醇(CORT)和黏膜血流量等的影响,探讨其保护胃黏膜的机制。方法:Wistar大鼠随机分为正常组,模型组,加味四逆散高、中、低剂量( $10, 5, 2.5 \text{ g} \cdot \text{kg}^{-1}$ )组,奥美拉唑( $3.0 \times 10^{-3} \text{ g} \cdot \text{kg}^{-1}$ )组,除正常组外,其余各组采用10种不可预知刺激法建立慢性大鼠心理性应激胃溃疡模型,灌胃给药4周后,常规HE染色观察胃组织形态学改变及胃黏膜溃疡指数(UI),多道生理记录仪检测胃黏膜血流量(GMBF),放免 $\gamma$ 计数器检测血浆ACTH,血清CORT的变化。结果:模型组大鼠胃黏膜弥漫出血、溃疡糜烂,其胃黏膜UI,血浆ACTH,血清CORT与正常组比较均明显升高( $P < 0.01$ ),GMBF,胃黏膜修复有效率与正常组比较均明显下降( $P < 0.01$ ),加味四逆散高、中、低剂量组大鼠胃黏膜损伤较模型组不同程度减轻,其胃黏膜UI,血浆ACTH,血清CORT与模型组比较均明显下降( $P < 0.01$ 或 $P < 0.05$ ),而GMBF,胃黏膜修复有效率与模型组比较均明显升高( $P < 0.01$ 或 $P < 0.05$ )。结论:慢性心理性应激对大鼠胃黏膜有明显损伤作用,加味四逆散能显著减轻心理性应激导致的胃黏膜损伤,有效减低溃疡指数,调整神经内分泌功能,增加GMBF和提高胃黏膜修复能力。

**中文关键词:**[加味四逆散](#) [心理性应激](#) [胃黏膜血流量](#) [黏膜溃疡指数](#) [促肾上腺皮质激素](#) [皮质醇](#)

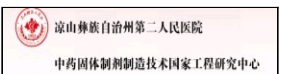
## Protective Effect of Jiawei Sini San on Gastric Mucosal in Rat Model of Gastric Ulcer Induced by Chronic Psychological Stress

**Abstract: Objective:** To establish a rat model of gastric ulcer by chronic psychological stress, observation the effects of Jiawei Sini San (JWSNS) on gastric mucosal morphology, plasma adrenocorticotrophic hormone (ACTH), serum cortisol (CORT) and blood flow in gastric mucosal of model rats, and study the mechanism of protection. **Method:** Wistar rats were randomly divided into 5 groups: normal group, model group, JWSNS small, middle, big doses ( $10, 5, 2.5 \text{ g} \cdot \text{kg}^{-1}$ ) groups, omeprazole ( $3.0 \text{ mg} \cdot \text{kg}^{-1}$ ) group. Besides normal group, gastric ulcer was induced by chronic psychological stress in other groups using 10 unpredictable stimulation methods in four weeks. After two weeks of the stress, the treatment groups were given the drugs (in 2 mL of volume) accordingly, while the blank control group and model group were gavaged with normal saline of 2 mL daily. After 4 weeks, morphological changes in gastric tissue were observed, gastric mucosa ulcer index (UI), gastric mucosal blood flow (GMBF), plasma ACTH and serum CORT were determined. **Result:** After 4 weeks, gastric mucosa in model group showed diffuse bleeding ulcer. Compared with the normal group, the gastric mucosa injury was obvious, UI, plasma ACTH, serum CORT were significantly higher ( $P < 0.01$ ), while GMBF, gastric mucosa repair rate were significantly decreased ( $P < 0.01$ ). Compared with the model group, JWSNS dose groups showed reduced gastric mucosal injury, the gastric mucosal UI, plasma ACTH, serum CORT were significantly decreased ( $P < 0.01$  or  $P < 0.05$ ), while GMBF, gastric mucosa repair rate were increased significantly ( $P < 0.01$  or  $P < 0.05$ ). **Conclusion:** Chronic psychological stress could damage gastric mucosa significantly in rats, induce gastric mucosal UI, elevate plasma ACTH and serum CORT, decrease GMBF and gastric mucosa repair ability. JWSNS could reduce significantly psychological stress-induced gastric mucosal injury, effectively reduce the ulcer index, regulate neuroendocrine function, increase GMBF and improve mucosal repair capacity.

**keywords:** [Jiawei Sini San](#) [psychological stress](#) [gastric mucosa blood flow](#) [mucosal ulcer index](#) [adrenocorticotrophic hormone](#) [cortisol](#)

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