
Abstract
AIM: To explore the anti-inflammatory mechanism of Diammonium Glycyrrhizinate in a rat model of ulcerative colitis induced by acetic acid.
METHODS: Sprague-Dawley female rats were divided into four groups: Diammonium Glycyrrhizinate group, dexamethasone group, acetic acid control and normal control group. Colonic inflammation was evaluated by disease activity index, gross morphologic damage, histological injury and colonic myeloperoxidase activity. Immunohistochemistry was used to detect the expression of NF-κB, TNF-α and ICAM-1 in colonic mucosa.
RESULTS: Compared to the acetic acid control, both Diammonium Glycyrrhizinate and dexamethasone showed a significant anti-inflammatory effect (P < 0.01). The expression of NF-κB, TNF-α and ICAM-1 in colonic mucosa was significantly lower in the Diammonium Glycyrrhizinate group and dexamethasone group than in the acetic acid group.
CONCLUSION: Diammonium Glycyrrhizinate could reduce inflammatory injury in a rat model of ulcerative colitis. This may occur via suppression of NF-κB, TNF-α and ICAM-1 in colonic mucosa.