
Abstract
Hesperidin, a flavanone-type flavonoid, is abundant in citrus fruit and has a wide range of pharmacological effects. Here we investigated the effect of Hesperidin on dextran sulphate sodium (DSS)-induced experimental ulcerative colitis in mice. Sulfasalazine (positive control) and Hesperidin in doses of 10, 40 and 80 mg/kg were administered orally once a day for 7 days, beginning concurrently with exposure to DSS. The symptom of ulcerative colitis was evaluated by disease activity index (DAI) and the wet weight of colon. Myeloperoxidase (MPO) activity, malondialdehyde (MDA) content and the levels of interleukin-4 (IL-4) and interleukin-6 (IL-6) in serum were measured to observe the possible mechanisms. Oral administration of Hesperidin significantly decreased DAI, MPO activity, MDA content and the level of IL-6 in serum (p<0.01), while there was no significantly effect on the level of IL-4 in serum. These results demonstrate that Hesperidin can ameliorate DSS-induced experimental colitis, and may be useful in the prevention and treatment of colitis.