



## Experimental and clinical study of Danshen on treatment of peptic ulcer

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Received: June 11, 1998  
Revised: July 24, 1998  
Accepted: August 18, 1998  
Published online: October 15, 1998

### Abstract

**AIM:** To study the therapeutic efficacy and adverse reaction of Danshen on treatment of reserpine induced ulcer of rats, and effect of Danshen on treatment of peptic ulcer.

**METHODS:** Sixty rats were randomized into two groups after twenty-four hour fast, thirty rats were given subcutaneous injection of Danshen 10 mL/kg, thirty controls were treated with normal saline 10 mL/kg. One hour later, all rats were given subcutaneous injection of reserpine 5 mg/kg each. Eighteen later, observation was made on acute injury of gastric mucosa, gastric mucosal blood flow, gastric acid secretion and free radical of oxygen for all rats. 120 patients with peptic ulcer were randomized into two groups, 90 received intravenous drip of Danshen 40 mL and 5% glucose solution 250 mL in the morning, and an additional of Danshen 10 mL orally before,

for one course of 4 wk. Thirty received ranitidine 150 mg, twice daily for one course of 4 wk.

**RESULTS:** The index of ulceration, gastric mucosal blood flow, gastric acid secretion, SOD, MDA in Danshen group were  $20.37 \pm 9.89$  mv,  $194.5 \pm 39.61$  mv,  $14.06 \pm 5.61$  meq/L,  $262.57 \pm 106.6$  ng/mL,  $49.64 \pm 23.27$  nmol/g tissue, respectively. In group control they were  $65.81 \pm 36.25$  mv,  $52.27 \pm 11.6$  mv,  $31.13 \pm 7.24$  meq/L,  $54.36 \pm 23.31$  ng/mL,  $289.61 \pm 30.27$  nmol/g tissue ( $P < 0.01$ ). The healing rate of ulcer. In Danshen group was 86.7%, negative rate of *Helicobacter pylori* (Hp) was 57.1%, epigastric pain disappeared in an average of 6 d. Relapse rate is 27.8% in one year. In controls they were 76.7%, 5%, 10 d, 72%, respectively.

**CONCLUSION:** Danshen can increase gastric mucosal blood flow, reduce gastric acid secretion, eliminate free radical of oxygen, destroy Hp. Danshen is effective in short-term treatment of peptic ulcer. The relapse rate is low in one year.

**Key words:** Peptic ulcer/drug therapy; *Salvia miltiorrhiza*/therapeutic use; Gastric acid/secretion; Gastric mucosa/blood supply

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Liu RJ, Wang YS, Li ZQ, Tang XK, Nie Q, Xia PJ, Guo Y, Zhang W. Experimental and clinical study of Danshen on treatment of peptic ulcer. *World J Gastroenterol* 1998; 4(Suppl2): 78 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v4/iSuppl2/78.htm> DOI: <http://dx.doi.org/10.3748/wjg.v4.iSuppl2.78>

E- Editor: Li RF



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