

Effects of Weitongling decoction on gastric mucosal blood flow and models of Spleen deficiency syndrome in rats

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Abstract

AIM: To study the protective effects of Weitongling decoction (WTL) on gastric mucosa.

METHODS: Rats with gastric lesion induced by dehydrated alcohol were used to observe the gastric mucosal blood flow (GMBF), rats with spleen deficiency syndrome induced by reserpine were applied to investigate the D-xylose absorption rate, the Alcian blue binding properties of gastric wall, the gastric acid secretion and the activity

of pepsin.

RESULTS: Remarkable increases in GMBF (19.5 ± 3.5 mL/min, 20.4 ± 3.3 mL/min respectively in large dose group and small dose group, $P < 0.01$), in Alcian blue binding properties of gastric wall (2.497 ± 0.138 mg, 2.223 ± 0.186 mg respectively in large dose group and small dose group, $P < 0.05$) and in D-xylose absorption rate (1.287 ± 0.043 , 1.294 ± 0.019 respectively in large dose group and small dose group, $P < 0.05$) were found after administrations of WTL, while no significant alteration in gastric secretion was shown and in vitro WTL did not neutralize gastric acid.

CONCLUSION: WTL can improve the Spleen deficiency syndrome, strengthen the gastric mucosal barrier, and thus protect gastric mucosa against injury agents.

Key words: Gastric mucosa; Blood flow velocity; Spleen deficiency; Weitongling; Gastric acid; Rats

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