

Effect of Chinese herbal mixture, shock decoction on bacterial translocation from the gut

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Abstract

AIM: To provide the TCM therapeutic basis for MODS in clinical critical patients, the role of shock decoction in anti bacterial translocation from the gut was tested in rats.

METHODS: Based on the pathophysiology of MODS following bacterial translocation from the gut caused by severe injuries such as burn, shock, hemorrhagic shock model that induced obvious bacterial translocation was established and used to determine whether shock decoction, that is composed of modified Wenpi Decoction, reduces

bacterial translocation. Bacterial culture for mesenteric lymph nodes, liver and spleen of rats in shock, treatment and control groups was used to calculate the incidence of bacterial translocation.

RESULTS: The incidence of intestinal bacteria translocating to mesenteric lymph nodes, liver and spleen was lower in the shocked rats infused *via* gastrogavage with shock decoction (3/15) than that in the non-infused shocked rats (11/13), ($P = 0.0009$, < 0.01). The incidence of intestinal bacteria translocation of rats in shock and control groups were distinctly different ($P = 0.0017$, < 0.01). The amounts and species of intestinal flora between infused and noninfused shocked rats were not different statistically ($P = 0.101$, $P > 0.05$). Histological examination showed that intestinal mucosa edema was severer in the shocked rats than in the shocked rats with gastrogavage.

CONCLUSION: Shock beverage could inhibit the shock induced enterogenous bacterial translocation in rats probably by its protective role in intestinal mucosa structure; and has no effect on the growth of intestinal bacteria.

Key words: Critical illness; Enterobactin; Gut origin sepsis; Multiple organ dysfunction syndrome (MODS); Multiple organ failure; Anti-bacterial translocation from the gut; Shock; Chinese herb

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