

硝菴通结方对功能性便秘大鼠血清内毒素和结肠黏膜菌群的影响*

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摘要:目的 观察硝菴通结方对功能性便秘大鼠血清内毒素和结肠黏膜菌群的影响,探讨硝菴通结方治疗便秘的作用机制。方法 将50只SPF级Wistar雄性大鼠随机分为空白组、模型组、硝菴通结方大、中、小剂量组。除正常组外,其余大鼠以15 mg/kg复方地芬诺酯混悬液灌胃复制便秘模型。造模成功后,给予硝菴通结方水煎剂灌胃治疗,给药30天后,ELISA法检测血清内毒素水平;取结肠黏膜组织, DGGE法检测结肠黏膜菌群。结果 与空白组比较,模型组的大鼠血清中内毒素含量显著升高($P<0.01$);给药治疗后,硝菴通结各治疗组大鼠血清中内毒素含量均降低($P<0.01$),其中硝菴通结方大剂量组最为显著;模型组大鼠结肠黏膜菌群多样性和丰富度与空白组比较显著不同($P<0.01$),给药治疗后,各剂量的硝菴通结方治疗组大鼠结肠黏膜菌群多样性和丰富度均明显升高($P<0.01$),其中以硝菴通结方大剂量组最为明显。结论 硝菴通结方可通过提高结肠黏膜菌群多样性和丰富度对功能性便秘发挥治疗作用,同时该方还有显著的血清内毒素的作用。

关键词:功能性便秘;硝菴通结方;血清内毒素;结肠黏膜菌群

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Effect of Xiaofutongjie Formula on Serum Endotoxin and Colonic Mucosa Flora in Functional Constipation Disease

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Abstract: Objective To observe the effect of Xiaofutongjie formula on serum endotoxin and colonic mucosa flora in functional constipation disease, and to explore the mechanism of Xiaofutongjie formula for treating constipation. **Methods** 50 SPF Wistar male rats were randomly divided into control group, model group, Xiaofutongjie formula, large, medium and small dose group. Except of the blank group, the remaining rats was given 15mg/kg oral suspension diphenoxylate to prepare constipation model. After modeling, Xiaofutongjie formula treatment was administrated for 30 days, then the serum endotoxin levels were detected by ELISA; colon mucosa was taken, DGGE method to detect colonic mucosa flora. **Results** Compared with the control group, the serum toxin levels in the model group was significantly increased ($P<0.01$); In the Xiaofutongjie formula three groups, serum endotoxin concentration decreased ($P<0.01$), especially the maximum dose of Xiaofutongjie formula group; compared with control group, colon mucosa flora diversity and richness in model group was significantly different ($P<0.01$); After administration of treatment, bacterial diversity and richness in each dose of Xiaofutongjie formula were significantly increased ($P<0.01$), especially the large dose of Xiaofutongjie

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