

论文

紫草抗胚胎植入作用与muc1蛋白在子宫内膜表达的关系

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摘要:

目的 探讨中药紫草抗胚胎植入作用与粘蛋白1 (muc1) 在小鼠子宫内膜表达的关系。方法 将受精后昆明小白鼠随机分为实验组和对照组, 实验组灌服不同浓度剂量的紫草浸液, 对照组包括灌服生理盐水组和空白对照组。在小鼠交配后第4天晚取出Y型子宫, 一侧子宫进行苏木素-伊红染色(HE)、免疫组化染色观察子宫内膜形态和muc1蛋白表达情况; 另一侧行免疫印迹法(Western blot)对muc1蛋白的表达量测定分析; 在合笼交配后的第8天观察小鼠胚胎植入成功率。结果 实验组与对照组比较, 子宫内膜上皮细胞排列紊乱, 宫腔变大; 随着药物剂量的增加, 子宫内膜细胞muc1表达量逐渐增多, 各实验组与对照组差异明显(P<0.05); 各实验组的胚胎植入率与对照组的胚胎植入率差异明显(P<0.05)。结论 紫草能阻止子宫内膜muc1蛋白表达的消失从而阻止胚胎着床, 具有抗早孕的效果。

关键词: 紫草; muc1蛋白; 子宫内膜; 抗胚胎植入

Relationship between anti-implantation effect of arnebia root and expression of muc1 in the endometrium of early pregnant mice

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Abstract:

Objective To explore the relationship between anti-implantation effect of arnebia root and expression of the muc1 protein in the endometrium of early pregnant mice. Methods Mated female mice were randomly divided into the experimental groups and the control group. The experimental groups were fed with an arnebia root solution at different concentrations and the control group was fed with saline on day 1, 2, 3, 4 of pregnancy. The uteri of the mice were removed at night on day 4 of pregnancy. In order to observe the morphological changes and expression of the muc1 protein in the endometrium, one side of the uteri were stained with HE and immunohistochemistry. Expression of the muc1 protein on the other side of the uteri was measured by Western blot. The mated mice were executed to assess the implantation rate on day 8 of pregnancy. Results The endometrium in the experimental groups exhibited morphological changes compared with that in the control group. Expression of the muc1 protein was positively related to the doses of arnebia root, and the difference between experimental groups and the control group was significant (P<0.05). The rates of embryo implantation in the experimental groups and the control group were significantly different (P<0.05). Conclusion The arnebia root can prevent embryo implantation by inhibiting disappearance of the muc1 protein.

Keywords: Arnebia root; Mucin 1 protein; Endometrium; Anti-implantation

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