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## Improvement of rat cervicitis using medicinal smoke condensate of jennet feces: animal model set up and vaginal cream production; histopathological study

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### Abstract

**Introduction** Iranian traditional medicine has recommended the use of smoke from complete burning of jennet feces as a strong anti-inflammatory and wound healing component. Therefore, the present study was done to set up an animal model of cervicitis and production of vaginal cream of this smoke to evaluate anti-inflammatory effects of that in cervicitis. **Materials and Methods** We used 20 female vistar rats weighting 200-250 gr in 4 groups for animal model set up using different dosage of phenol and CMC for the first time. The vaginal cream was containing 5% jennet faces smoke. Groups were divided in to health, cervicitis model, control (receive base cream) and treatment (receive smoke cream). After induction of cervicitis, control and treatment groups were received base cream and 5% vaginal smoke cream respectively for five days. Vaginal pH was measured during of study. After 5 days, the cervix organs were examined by histopathological assay. **Result** No significant difference in vaginal pH in all of 4 groups of the intervention. In the model and control groups, we observed inflammatory cell infiltration and some visible epithelial erosion. After treatment with 5% vaginal smoke cream, the pathological features of cervicitis decreased significantly; inflammation ( $p = 0.011$ ), vascular congestion ( $p = 0.001$ ) and erosion scores ( $p > 0.005$ ). **Conclusion** The smoke of jennet feces has anti-inflammatory effects on phenol-CMC induced cervicitis in rat model.

**Key word:** vaginal cream, smoke, feces, cervicitis, rat model