9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Poster Presentations

P-30
Upregulation of elafin expression in the fallopian tube of ectopic tubal pregnancies compared to the normal tubes

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Background: Ectopic pregnancy is one of the most important causes of maternal mortality and fallopian tubes are the location of 95% of ectopic pregnancies. Elafin is a natural antimicrobial molecule that plays an important role as an anti-inflammatory agent in mucosal surfaces and has been found in the female reproductive tract.

Objective: The aim of this study was to investigate elafin expression, in the fallopian tube mucosa of ectopic pregnancies compared to the normal tubes using immunohistochemistry techniques and quantitative reverse transcription (qRT-PCR).

Materials and Methods: In this case-control study, uterine tube samples were obtained from patients with an indication for surgical removal of the tubes. The case group (n = 20) consisted of patients who were undergoing salpingectomy due to an ectopic pregnancy, the control group (n = 20) included patients who had a salpingectomy and hysterectomy. Using qRT-PCR and immunohistochemistry, the expression of elafin was investigated in both study groups.

Results: Immunohistochemical expression of elafin in the epithelium and connective tissue was significantly increased in the implantation site of the patients in comparison with the control group ($p < 0.001$). The level of elafin mRNA increased in the mucous membrane of the fallopian tube from patients with the ectopic pregnancy compared to the normal mucosa ($p < 0.001$).

Conclusion: Increasing expression of elafin during an ectopic pregnancy may be a mechanism for enhancing innate immune response and be involved in related pathological conditions such as infection and ectopic implantation.

Key words: *Elafin, Ectopic pregnancy, Immunohistochemistry, Reverse transcriptase quantitative PCR.*

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