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SURGERY

EXPRESSION OF THE TYROSINE KINASE RECEPTOR (EPHA2) IN THE ENDOMETRIUM OF PATIENTS WITH DEEP INFILTRATIVE ENDOMETRIOSIS

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Aim: to evaluate the nature of the expression of the EphA2 receptor in the endometrium of healthy women and in ectopic epithelial cells in deep infiltrative endometriosis.

Material and methods: A comparative study of the expression of EphA2 in ectopic endometrium in women with endometriosis, endometrial adenocarcinoma and in healthy women in different phases of the menstrual cycle was carried out.

Results: Immunochemical studies have shown that EphA2 is present in epithelial cells of the normal endometrium in the proliferative phase and practically absent in the secretory phase. In the epithelial cells of the infiltrative ectopic endometrium, the intensity of staining is significantly higher than in the normal endometrium of the proliferative phase and is comparable to the intensity of EphA2 expression in endometrial cancer cells.

Conclusion: The results of the study showed the presence of EphA2 overexpression in the epithelial cells of the infiltrative ectopic endometrium. Thus, in addition to the diagnostic value, the modulation of the activity of these receptors in endometriosis can serve as a target for therapy.

Literature:

1. Salem A. F., Wang S., Billet S., Chen J. F., Udompholkul P., Gambini L., Baggio C., Tseng H. R., Posadas E. M., Bhowmick N. A., and Pellecchia M. 2018; Reduction of Circulating Cancer Cells and Metastases in Breast-Cancer Models by a Potent EphA2-Agonistic PeptideDrug Conjugate. Journal of medicinal chemistry J Med Chem. 2018; 61(5): 2052-2061.

EPH RECEPTORS IN CANCER AND ENDOMETRIOSIS

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The mechanism of endometriosis development is complex and controlled by various factors, most of which are based on cell proliferation, tissue invasion, neovascularization and inhibition of apoptosis. In women with endometriosis, the frequency of malignant neoplasms of different localization is increased, which indicates the similarity of their pathogenesis and common environmental, molecular and genetic risk factors [1,2]. The presence of common characteristics of the development of ectopic endometrium, especially in deep infiltrative endometriosis, and cancer suggests not only the same pathogenesis mechanism, but also common therapy approaches. Therefore, it cannot be excluded that many factors used today as a target for cancer therapy may manifest themselves similarly in endometriosis. In this regard, ephrin receptors (Eph) are of particular