

P232. Immunohistochemical characteristic of stem cells markers in foci of nodular and diffuse adenomyosis.

K M Dzhamalutdinova (RU) [1]

Context: Increase the effectiveness of diagnosis and treatment of patients with nodular and diffuse adenomyosis by studying the expression of markers of stem cells in eutopic and ectopic endometrium.

Study Objective: To study the features of the clinical course and expression of stem cell markers in ectopic and eutopic endometrium in patients with nodular and diffuse adenomyosis.

Design: Cross-sectional study

Setting: Federal Scientific Center of Obstetrics, Gynaecology and Perinatology, Moscow, Russia

Patients or Participants: Included are 150 women who underwent surgery between 2014 and 2016, with a pre-determined diagnosis of adenomyosis and subsequent confirmation of this by histological examination

Interventions: Immunohistochemical study of expression of stem cell markers in nodular and diffuse adenomyosis cells and comparison with eutopic endometrium

Measurements and Main Results: Immunohistochemical analysis of endometrial tissue and adenomyosis showed that a positive reaction with Musashi-1 was observed in both nuclei and in the cytoplasm of glandular and stromal cells. The maximum values were found in the nuclei of epithelial cells, where they exceeded the analogous phase of secretion by 35%. The cytoplasmic level of expression of Musashi-1 in proliferating epithelium was 21.7% higher than the values of the secretion phase. For COX-2, a cytoplasmic reaction is characteristic. As a result of the quantitative analysis of the intensity of the reaction on COX-2, it was established that in the tissue of normal endometrium the highest level of expression was observed in epithelial cells during the proliferation phase. Positive immunohistochemical reaction with OCT4 was observed in the nuclei of epithelial and stromal cells. In the observations of nodular adenomyosis, such OCT4 + epithelial and stromal cells were more by 67.7% and 41.3%, respectively, than in the eutopic endometrium of the proliferation phase. In areas of diffuse adenomyosis, their number exceeded the same parameters by 123.2% and 90.4%, respectively ($p < 0.05$).

Conclusion: Aberrant Musashi-1 expression of stem cells markers in adenomyosis may be involved in the pathogenesis and pathophysiology of adenomyosis.

[1] FSBI, Moscow