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P73. ENDOMETRIOID OVARIAN FORMATION. PECULIARITIES OF TIMP-1 AND TIMP-2 GENES EXPRESSION.

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CONTEXT. Ovarian endometriosis is represented by two morphohistological variants - endometrioid cyst (cystic) and endometrioma (glandular-cystic). An important role in the pathogenesis of ovarian endometriosis is attributed to invasion factors, in particular to tissue inhibitors of metalloproteinases 1 and 2. The data on the expression of TIMP-1 and TIMP-2 in endometriod tissue are quite contradictory, and therefore the evaluation of their expression in the cystic and glandular-cystic type of ovarian endometriosis is necessary for understanding mechanisms that ensure the formation and growth of endometriotic foci in two types of pathology.
OBJECTIVE. To determine the level of expression of TIMP-1 and TIMP-2 genes
in endometriod ovarian tissue in patients with cystic and glandular-cystic types of endometriosis.
METHODS., RT-PCR was used on the iCycler iQ5 real-time PCR instrument to determine the level of gene expression. The Gapdh gene was used as a control gene.
PATIENTS. The study included 82 patients: 60 with cystic endometriosis and 22 with glandular-cystic.
INTERVENTIONS. All patients underwent laparoscopic ovarian resection within a healthy tissue using KarlStorz equipment (Germany), followed by a histological examination of the received material.
MAIN OUTCOME MEASURES. Statistical processing of data was carried out using the program "GraphPad Prism 5.0". Samples were compared using a nonparametric Mann-Whitney test.
RESULTS. The expression of TIMP-1 gene increased by 1.5 times in the glandular-cystic variant of endometriosis comparing with cystic one ($p < 0.05$).
CONCLUSION. The increased TIMP-1 gene expression in the glandular-cystic type of ovarian endometriosis explains the smaller dimensions of this histological formation and also indicates a decrease in the proteolytic activity of this form of endometriotic foci, which may explain the possibility of the existance of isolated endometrioid cysts without signs of invasion into the surrounding ovarian tissue. The obtained data serve as a molecular-pharmacological confirmation of the need to separate the two histological variants of this pathology.

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