



Integrative assessment of menstrual blood biomarkers as an opportunity to predict endometriopathy

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Abstract

Objective. Improving the accuracy of the diagnosis of endometrial consistency and predicting endometriopathy.

Subjects and methods. 96 patients with a history of reproductive failure were examined. An analysis was made of menstrual blood with the measurement of glutathione peroxidase-1, interleukin-6 and E-selectin by the ELISA method of the “sandwich” type with monoclonal antibodies. In order to determine the normative parameters, the material of 30 healthy women was examined. To evaluate the results, the logistic regression method was applied. A mathematical model was developed that made it possible to determine the probability of endometriopathy at the threshold value of the integrative index $P \geq 0.29$.

Results. Patients with diagnostically significant P levels have signs of chronic inflammation, dyshormonal mucosa, and dystrophic changes in the endometrium. The average probability of the disease is P_c . For the patients it was 0.59, for the healthy - 0.22. The diagnostic sensitivity of the test is 93.3%, specificity is 92.86%.

Conclusion. The calculation of the prognostic probability of endometriopathy based on the measurement of the concentration of biologically active substances in menstrual secretions is appropriate for the primary non-invasive diagnosis (screening) of the non-tumor pathology of the endometrium. The diagnostic technique is patented.

Biography

Motovilova, Tatyana M is an Associate Professor of the Department of Obstetrics and Gynecology, Volga Regional Research Medical University, Ministry of Health of the Russian Federation, Nizhny Novgorod, Russia, and Doctor of the highest qualification category.

Publication

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