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TITLE

EVALUATION OF FLUORESCENT RAPID DIAGNOSIS OF THE ENDOMETRIUM IN THE COMPLEX PREPARATION FOR PREGNANCY AND PROGRAM IVF.

AUTHOR/S

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ABSTRACT

«Thin» endometrium prevents implantation and pregnancy.

Aim of the study: To evaluate the capacity and efficiency of Raman-fluorescent conversion diagnostic technology in women with failed IVF programs.

Methods. Raman-spectral conversion diagnostic, ultrasonography. Office hysteroscopy, morphologic and immunochemical methods. Spectral features (levels of reflection and luminescence) were measured in 3 areas –top part, middle and internal mouth of the uterus. Point to compare was skin point in internal part of femur. Raman-fluorescence was used to determine oxygenation, proliferation, microcirculation and aerobic or anaerobic metabolism in endometrium «on line». Non- invasive procedure. Time for detection – 1 minute.>

Patients.340 patients age of 32-47 years with noneffective (2-12) IVF programs. In 315 (92,6%) women chronic endometritis was seen by morphologic evaluation. In 25 (7,4%) – hormonal disorders.

Results. Raman-fluorescence technology enabled to determine oxygenation, proliferation, microcirculation and aerobic/anaerobic/metabolism in endometrium. Laser beam can delivered to endometrium by flexible guide. Fluorescence of normal endometrium showed to be 1,2-1,7 Relative units (RU), in case of morphological insufficiency 0,95-1,1 Rh. Fluorescence of chlorophyll was 2.2-2.5 RU. In 326 (95.9%) indicators of metabolism, morphologic structure and function were decreased initially. Proliferation figures were 2×10^6 - 9×10^7 metabolism $1 \pm 0,05$ RU, microcirculation 0.8-1,0 (normal 1.3-2.0)

After therapy figures of metabolism, proliferation and blood circulation came back to normal in 296 (87,0%) of patients, got better in 26 (7,6%), small changed in 18 (5,4%).

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