ISGE
GYNECOLOGICAL ENDOCRINOLOGY
THE 18TH WORLD CONGRESS
7-10 MARCH 2018 FLORENCE, ITALY

P263. Immunohistochemistry evaluation of endometriosis implants in patients following preoperative progestative treatment

D Comandasu (RO) [1], C Mehedintu (RO) [2], C Berceanu (RO) [3], D Mihai (RO) [4], E Bratila (RO) [5]

Context. Endometriosis is a chronic estrogen-dependent disease characterized by implants outside the uterus, causing anatomy alteration, chronic pelvic pain and infertility.
Objective. The study analyzed the immunohistochemical aspect of laparoscopically excised implants in 24 patients between 2014-2017.
Methods. We realized a quantitative analysis of markers associated with endometriosis using imaging cytometry after labeling biopsy sections by immunohistochemistry (IHC) technique.
Patients. The study group included 24 patients diagnosed with endometriosis, mean age 30 years, all nulliparous, 9 of them presenting with infertility. The presumptive diagnosis of endometriosis based on history, clinical exam and ultrasound evaluation was confirmed by histopathology.
Interventions. Patients were divided in 2 groups: 14 were operated without any prior treatment, while 10 received preoperative progestative treatment for an interval of three to six months.
Main Outcome Measures. We identified the expression of estrogen and progesterone receptors, nuclear proliferation marker Ki-67 and anti-apoptotic protein Bcl-2, in order to characterize the aggressiveness of endometriosis.
Results. Quantitative analysis showed positive progesterone receptor (PR) in all samples, the highest expression 40-50% and a lower ER expression (16-31%). Bcl-2 ranged between 1% and 52%, the low expression regions showing simultaneously PR overexpression. Ki67 was expressed in 1%-30% of the cells. Cell subpopulations were found positive for Bcl-2 and Ki67 with various proportions, in agreement with the clinical profile. Comparing the 2 groups of patients, we found a significant difference only in the expression of Ki67 as an aggressiveness marker, the other ones being positive in both groups at similar levels. Thus, Ki67 was significantly reduced in patients receiving long-term preoperative progestative treatment (1%-10%), compared to the group treated exclusively surgically (7%-30%).
Conclusion. Preoperative therapy using progestatives resulted in a less aggressive immunohistochemical aspect of the endometriosis implants, confirming its utility in clinical practice.
Acknowledgement: This study was financed through the grant obtained by PCCA competition 2013, Project Title: "Identification of cellular and molecular profile of endometriosis in order to develop new personalized therapeutic methods with predictive role for infertility", No PN-II-PT-PCCA-2013-4-1348 (Acronim: EndoFertil).

[1] “Carol Davila” University of Medicine and Pharmacy, Department of Obstetrics and Gynecology, “Prof. Dr. Panait Sarbu” Clinical Obstetrics Gynecology Hospital, Bucharest, Romania, [2] “Carol Davila” University of Medicine and Pharmacy, Department of Obstetrics and Gynecology, “Nicolae Malaxa” Clinical Emergency Hospital, Bucharest, Romania, [3] Craiova University of Medicine and Pharmacy, Department of Obstetrics

and Gynecology, Xraiova County Hospital, Craiova,, Romania, [4] “Carol Davila” University of Medicine and Pharmacy, Department of Obstetrics and Gynecology, “Prof. Dr. Panait Sarbu” Clinical Obstetrics Gynecology Hospital, Bucharest, Romania, [5] “Carol Davila” University of Medicine and Pharmacy, Department of Obstetrics and Gynecology, “Prof. Dr. Panait Sarbu” Clinical Obstetrics Gynecology Hospital, Bucharest, Romania