

PROGNOSTIC EVALUATION OF THE “ENDOMETRIOSIS FERTILITY INDEX” IN INFERTILE PATIENTS WITH ENDOMETRIOSIS

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Objectives: The aim of the study is to evaluate the pregnancy predictor capacity of the Endometriosis Fertility Index (EFI) described by Adamson in 1997, this index considers multiples prognosis factors, such like: age, time of infertility, adnexal anatomy and the American Fertility Society Score (AFS). After that, it was compared with the AFS Endometriosis Score in infertile patients who had a surgery with the postoperative diagnosis of endometriosis.

Design: A retrospective cohort study was performed. The data obtained from patients with the confirmed diagnose of endometriosis, as the only infertility cause, were analyzed, and the EFI and AFS index were calculated in agreement to the surgical protocols. We defined 3 prognostic groups for EFI: a) 0-3, b) 4-6 and c) 6-10; and 4 groups for AFS a) 1-5, b) 6-15, c) 16-40 and d) >40. Patients were followed for a period of 12 months at least. The pregnancy rates of each group were calculated without considering in vitro fertilization techniques (IVF). Cut-off values were determined; sensitivity, specificity and predictable values for pregnancy of EFI were calculated and compared with AFS values. For this purpose we used the statistical test of Fisher and ROC curves.

Results: The study considered a total of 50 patients with endometriosis confirmed by biopsy or surgical description with fertility desire. The global pregnancy rate was 24/50 (48%). The pregnancy rates calculated for each group of EFI were: a) 0/4 0%, b) 3/18 (16%) y c) 21/28 75%. The cut-off value for EFI calculated by ROC curve was 6, with a sensitivity of 88%, a specificity of 73%, and a positive predictable value of 75% and the negative predictable value of 86%. As the cut-off value of EFI was 6, we decided to compare the pregnancy rate of group C (EFI >6) with the rate of group A plus B, and the difference was statistically significant (SS) ($p < 0.05$). The average age of the groups were similar ($p=0.3$). The pregnancy rates for each group for AFS were: a) 7/8 (87%), b) 4/4 (100%), c) 11/23 (48%) d) 2/15 (13%). We analyzed and compared the pregnancy rates of groups of minimal and mild endometriosis (A and B) vs moderate and severe disease (C and D), these differences were SS. Again, groups were similar in average age.

Conclusions: The EFI demonstrates to be a good pregnancy predictor index with an adequate relation between its value and the pregnancy rate. We propose as cut-off value for pregnancy of 6 for EFI index and an 15 for AFS index. In our study those patients with an EFI index <4 should go direct to IVF. Both index showed a good correlation with pregnancy rates, with no differences on pregnancy prediction ability, even though EFI considers multiples prognosis factors. Nevertheless, there is a tendency that suggests EFI to be a better prognostic index; this tendency is under evaluation in an ongoing prospective trial.

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