



PROGNOSTIC EVALUATION OF ENDOMETRIOSIS FERTILITY INDEX IN PATIENTS WITH AN ENDOMETRIOSIS SURGERY

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I. OBJECTIVE

The aim of the study is to evaluate the pregnancy predictor capacity of the Endometriosis Fertility Index (EFI) described by Adamson in 1997 (Table 1). EFI is compared with the AFS Endometriosis Score in patients with infertility that have been subject of surgery with the post-surgery diagnosis of endometriosis. EFI is a post-surgical score performed by laparoscopy and combines clinical and surgical parameters, including funtional results of the anexal giving a final score. (Table 2)

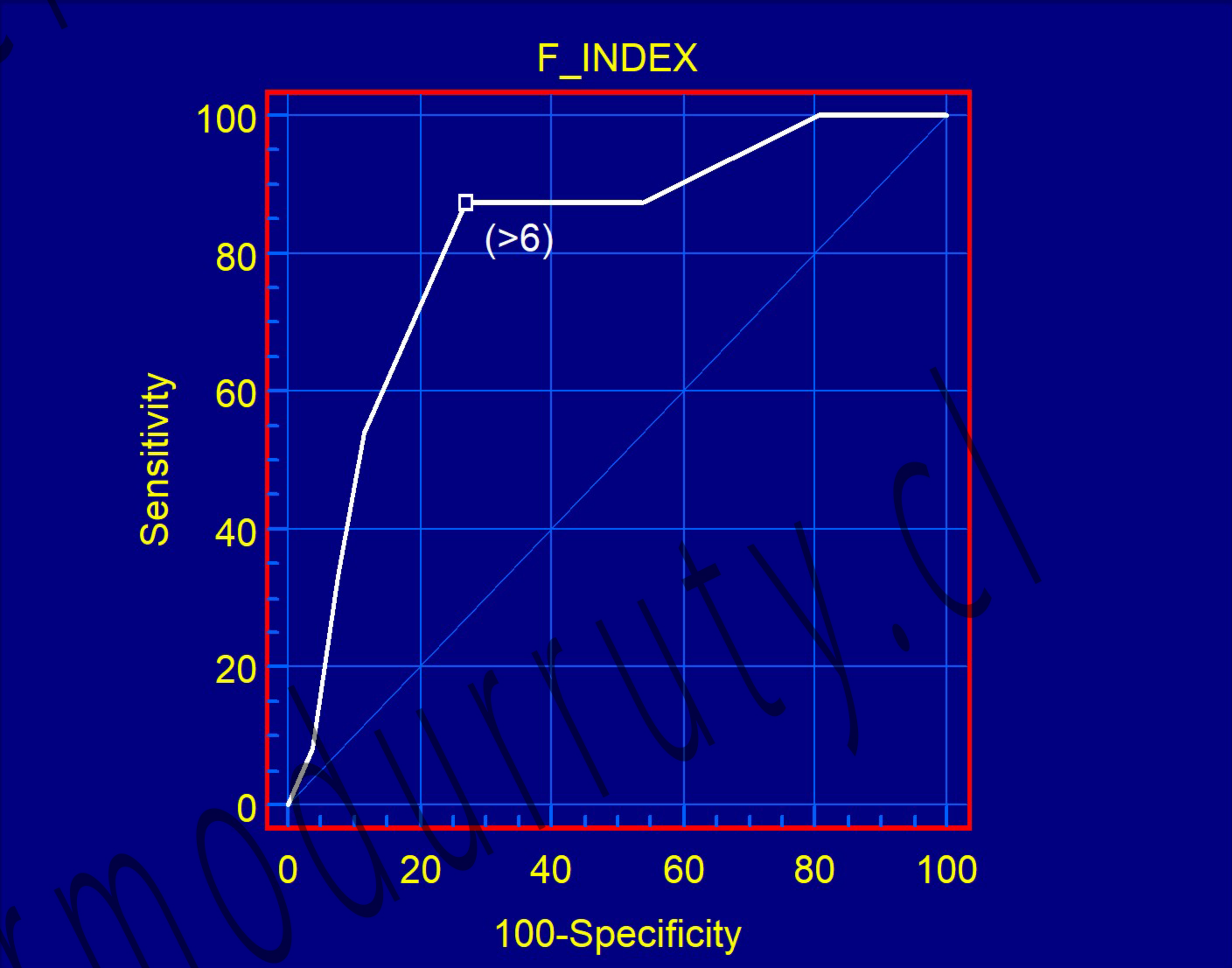
Score	0	1	2	3
Age	> 40	36-39	<35	
Infertility years	> 3		≤3	
Previous pregnancys	no	si		
Least function score	1-3		4-6	7-8
AFS score	≥ 16	< 16		
Score AFS total	> 71	< 71		

Table 1. Endometriosis Fertility Index

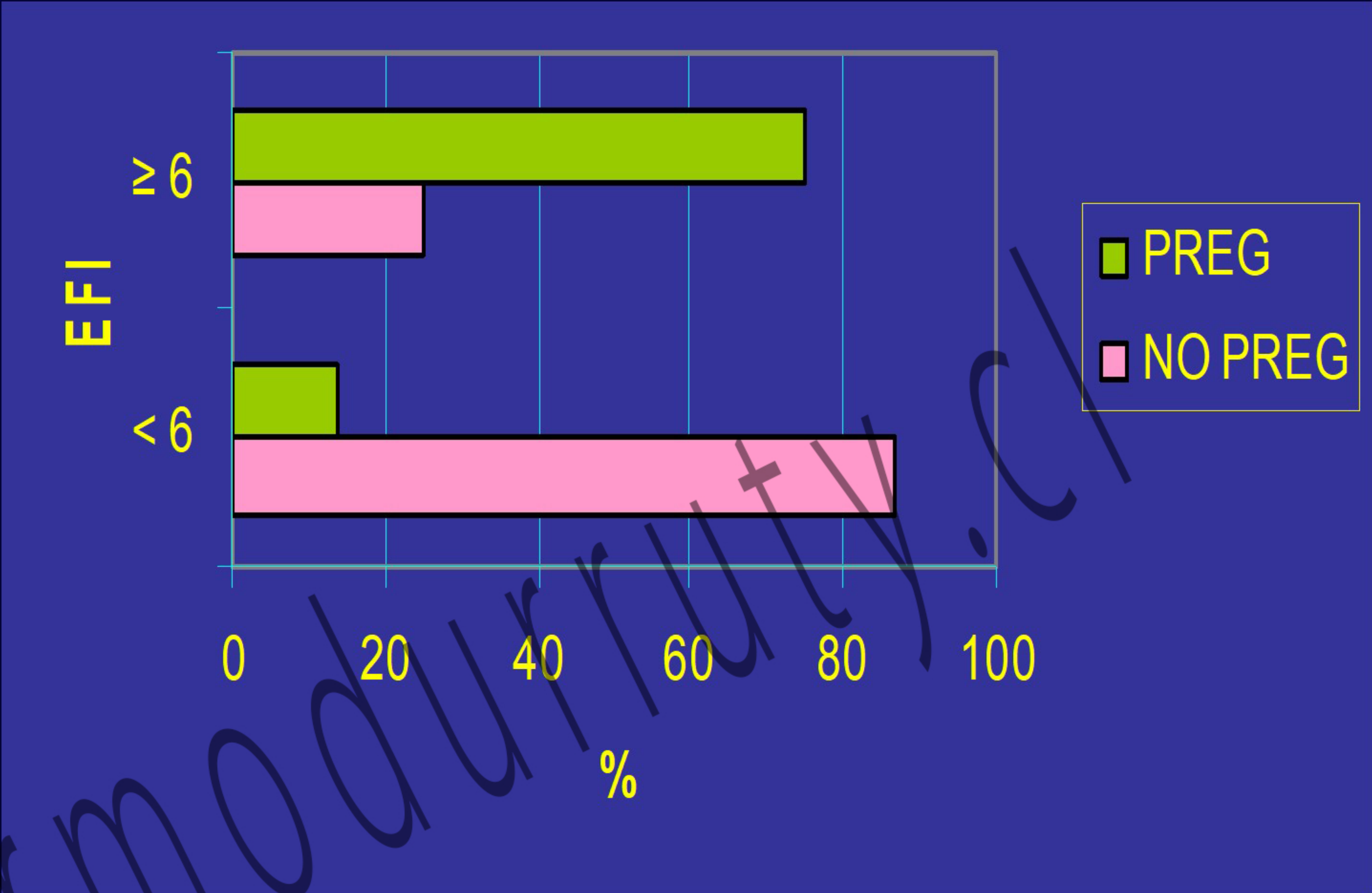
	Right	Left
Tube	a	x
ovary	b	y
Tube funtion	c	z
Worst score	+	= LFS

Table 2. Least Funtion Score

0= Absent
1= Severe Disfuntion
2= Moderate Disfuntion
3= Mild Disfuntion
4= Normal



Graph 1. ROC curve Fertility Index

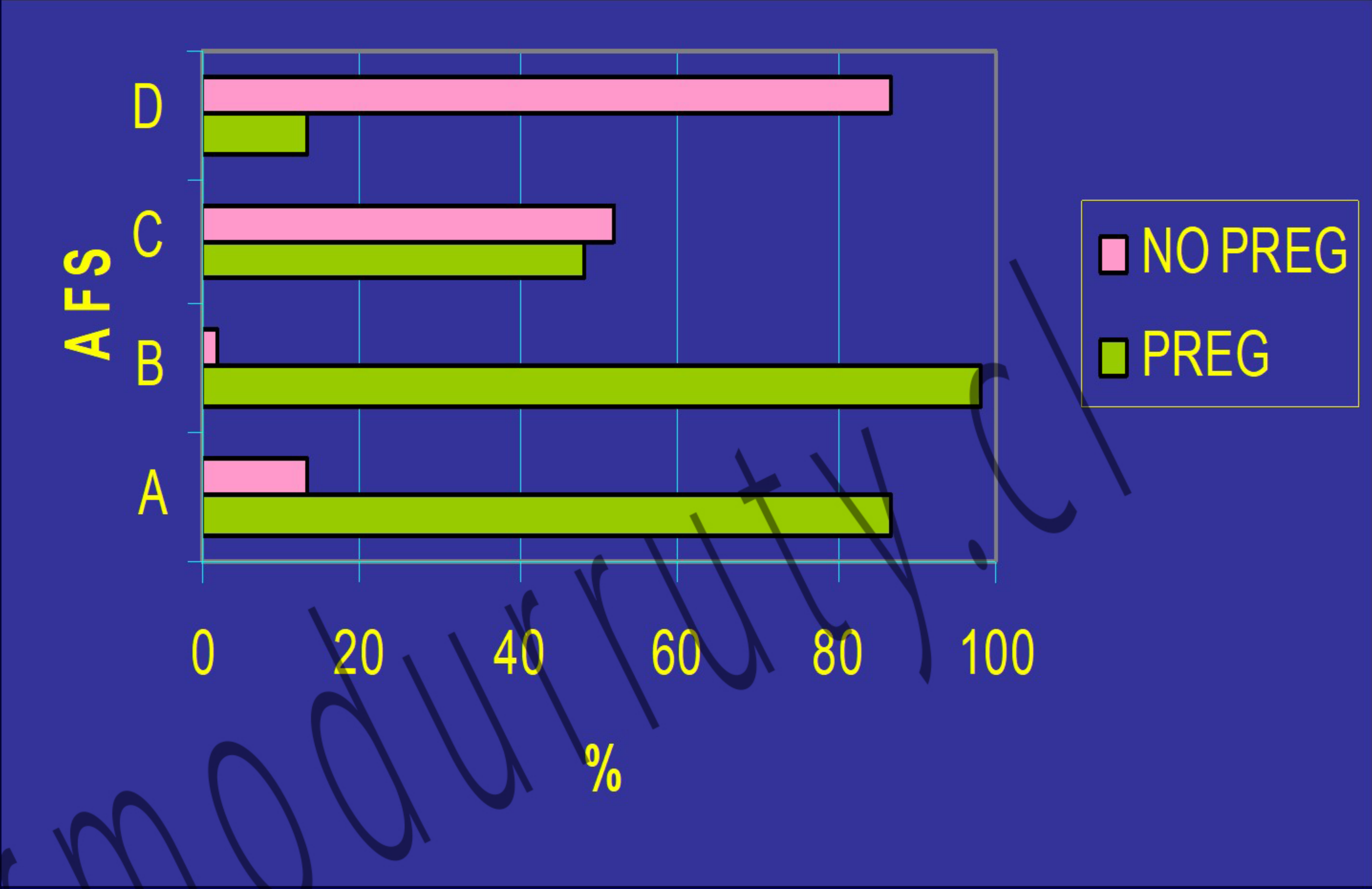


Graph 2. Pregnancy Rate/ EFI

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. Fisher test and ROC curves were used for statistic analysis.

III. 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 48%. The pregnancy rates calculated for each group of EFI were: a) 0%, b) 16% y c) 75%. The cut off value for EFI calculated by ROC curve was 6 with sensitivity of 88%, specificity of 73%, positive predictable value of 75% and negative predictable value of 86% (Graph 1). 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. The difference was statistically significant (SS) (p< 0.05) (Graph 2). The average age of these groups were similar(p= 0.3). The pregnancy rates for each group for AFS were : a) 87%, b) 100%, c) 48% d) 13% (Graph 3). Pregnancy rates of both groups of minimal and mild endometriosis (A and B) vs moderate and severe disease (C and D) were compared. Statistical difference was significant (p < 0.05) There was not statistical difference in average age between both groups.



Graph 3. Pregnancy Rate/ AFS

IV. CONCLUSIONS

Our results show a positive correlation between EFI and pregnancy rates, using a cut of value of 6 and AFS index of 15. According to this, patients with EFI < 4, should be referred to IVF. Even though both EFI and EFS index correlate with pregnancy rates, there is a tendency that suggests EFI as a better predictor.