

## **25: EVALUATING THE EFFECT OF ADDITION OF PENTOXIFYLLINE, VITAMIN E AND SILDENAFIL FOR ENDOMETRIAL PREPARATION IN ASSISTED REPRODUCTION THERAPY (ART) CYCLES IN WOMEN WITH POOR ENDOMETRIAL BUILDUP**

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### **Objective**

To assess the effect of adjuvants to improve endometrial thickness, vascularity in women with previous history of poor endometrium.

### **Design**

Retrospective data analysis from IVF records over 8 months (May to Dec 2017)

### **Materials and Methods**

A total of 131 cycles were analyzed. Those who received standard endometrial preparation and those who received adjuvants alongside were Group I & II respectively. Group I received oral Pentoxifylline 800 mg, vitamin E 400mg and sildenafil 25 mg from the start of endometrial preparation till embryo transfer in addition to the standard endometrial preparation. Group II received the standard preparatory regimen. Primary outcomes were endometrial thickness (ET) prior to endometrial transfer & pregnancy rates in the both groups. Statistical Analysis: The data was entered to Microsoft® Excel 2016 spread sheets for ease of analysis. The statistical analysis done sought to compare the standard endometrial preparation and the adjuvant added protocols in terms of the outcomes enumerated above. As the parameters compared are independent variables. Chi Square tests were applied to assess statistical significance with P value of less than 0.05 to determine significance.

### **Results**

Of the 131 embryo transfer cycles, 106 had standard endometrial preparation and 25 received adjuvants in view of poorly building endometrium. In Group II, average endometrial thickness at transfer on the day of hCG was 8.1mm (6.6-11mm) of which 6 (24%) had had ET < 8mm. In the Group I, the mean endometrial thickness was 9.73 mm (7.1 – 13.3 mm) and 10 (9.5%) had endometrial thickness less than 8mm. Clinical pregnancy rates were 49/106(46%) and 15/25(60%) in the standard and adjuvant groups. In the subset of patients who had endometrium <8mm thick, significantly more (p value 0.001) pregnancies were noted in the adjuvant group [4/6(66%)] compared to standard group [2/10(20%)].

### **Conclusions**

Addition of adjuvants like Pentoxifylline, Vitamin E and Sildenafil for endometrial preparation in women in women with poorer ET, resulted in satisfactory pregnancy rates even in women whose ET was less than 8mm at time of transfer. Hence, it seems a promising therapy in thin endometrium to improve the pregnancy rates.