



**ORIGINAL RESEARCH PAPER**

**Gynaecology**

**EVALUATION OF EFFICACY OF POSTCOITAL TEST**

**KEY WORDS:**

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**ABSTRACT**

Post coital test is no longer considered as an investigation for infertility. If it is negative, treatment suggested is intrauterine insemination. The test causes much stress to the couple especially on the male partner. The treatment of unexplained infertility is controlled ovarian hyperstimulation and IUI; hence the thinking is why to do this investigation if the treatment and outcome does not change.

We analysed about 4628 cases of infertility over 3 years in a tertiary care institution in North Malabar. Post coital test was done in all these cases. Analysis shows that doing PCT increases the chances of pregnancy. In our study, it was found that pregnancy rate was more in PCT negative group. In PCT negative cases, pregnancy rate was 11.3% and 7.72% in PCT positive cases. This study shows that PCT has a therapeutic benefit.

**INTRODUCTION-**

The use of the post-coital test (PCT) in the basic fertility workup has been subject to debate over the last few years. PCT was first performed in 1866 by J. Marion Sims and later described by Max Huhner. Post coital testing of cervical mucus for the presence of progressively motile sperms was an important part of infertility investigations. But, several studies have shown that the diagnostic power of PCT is limited.

**MATERIALS AND METHODS**

Pregnancy rates of patients presenting with infertility, who underwent Post coital test in our institution was studied between Jan 1<sup>st</sup> 2014 and 31 Dec 2017.

Inclusion criteria-Patients with unexplained infertility with the following criteria

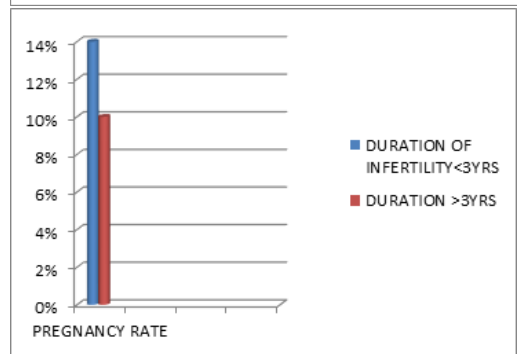
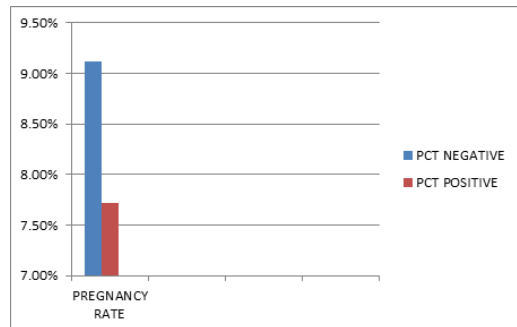
- 1) Normal semen analysis according to 2010 WHO criteria
- 2) No coital problems
- 3) Regular cycles, no ovulatory dysfunction
- 4) Tubal patency normal (evaluated by HSG/Laparoscopic chromotubation)
- 5) No clinical or sonological evidence of endometriosis
- 6) Normal uterus

Couples were asked to have intercourse 1-2 days prior to the predicted time of ovulation and present to the clinic within 6 hours. Cervical mucus was removed or aspirated with syringe and placed on a slide. Mucus was examined for presence of sperms. 5 motile sperms/high power field indicates normal sperm mucus interaction. Absence of sperms or clumping of sperms can be due to incorrect timing, infections, and medications with anti estrogenic action on cervical mucus or due to presence of antisperm antibodies. Cervical mucus is also assessed for spinbarkeit and ferning.

**RESULTS**

PCT was done in sub fertile couples presenting to our infertility clinic between Jan 2014 and Dec 2017. Follow up was done either till pregnancy was achieved or till 24 months. Out of the 4628 patients who underwent PCT, test was negative in 1804 (38.98%) cases and positive in 2824 (61.01%) cases.

Out of 4628 cases, pregnancy was achieved in 422 cases (9.12%). 204 cases of PCT negative (11.2%) group became pregnant. Pregnancy rate was 7.72% in PCT positive group.

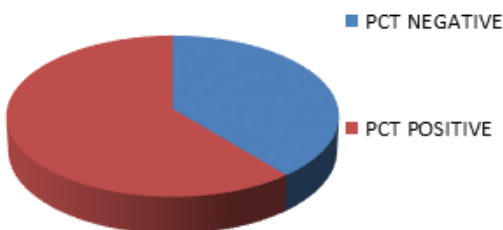


To summarise, after exclusion of other causes, pregnancy rate was higher in PCT negative cases. It was also noted that pregnancy rate was higher in those presenting with duration of infertility less than 3 years (14% versus 10%).

**DISCUSSION**

This study showed that post coital test has a therapeutic effect. A negative PCT was associated with an increased chance of conception in our study in contrast to the popular assumption that positive PCT is associated with a higher pregnancy rate.

Several studies have demonstrated a strong association between PCT and pregnancy rate. In a prospective study, Glazener et al concludes that PCT is an effective predictor of conception if duration of infertility is less than 3 years. PCT can also be used to discriminate cervical and unexplained infertility. Leushuis et al showed that infertile couples with negative PCT have a lower probability of a spontaneous pregnancy. If duration of infertility is prolonged, conception rate is lower even with a positive PCT. Interestingly; our study showed that pregnancy rate was more in



PCT negative group, suggesting that even though PCT has some therapeutic effect, there is no prognostic benefit.

To conclude, in our study PCT was found to have a therapeutic effect. Pregnancy rate was found to be higher in PCT negative group. So regardless of whether PCT is positive or negative, the test increases the chance of pregnancy. The knowledge of fertile period and ensuing coitus at that time may be the factor responsible for the therapeutic effect.

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