

Female Infertility Risk Assessment in Relation to Serum Thyroid Hormone Levels and Serum Prolactin Levels

S. Pallavi

Dr. S. Pallavi, E 101, Vasavi Dreams, Street No 2, Near Poojitha Hospital, Czech Colony, Sanathnagar, Hyderabad-500018. Email Id: pallaviswamigari@gmail.com Ph No: 9573020053

Abstract

Background: Female infertility is an important problem with psychological and social implications. Existence of thyroid dysfunction and prolactin levels are considered an important cause of infertility in otherwise normal females. Hypothyroidism is known to affect fertility because it leads to anovulatory cycles, luteal phase defects, hyperprolactinemia, and sex hormone imbalances. **Aim:** We in the current study tried to evaluate the prevalence of clinical/sub-clinical hypothyroidism along with the presence of serum prolactin disorders in females with infertility. **Methods:** Women with primary or secondary causes of infertility attending the Department of Obstetrics and Gynecology were enrolled for the study. Age-matched women were included as controls. Fasting blood samples were obtained in the follicular phase and serum TSH, FT4, and FT3 were estimated by enzyme-linked immunosorbent assay and PRL levels were estimated by RAI. **Results:** The mean TSH levels of women with primary and secondary infertility were found to be significantly higher than the control group III. Similarly, the mean FT4 levels of the women with primary and secondary infertility (Group I and Group II) were significantly lower than the control group III. The mean serum levels of FT3 were not significantly different between all the groups. The mean serum prolactin levels of women in the group I and group II were significantly higher the control group III. **Conclusion:** Thyroid abnormalities are very common in females and chronic hypothyroidism may lead to ovulatory dysfunctions and hyperprolactinemia. Identifying and treating hypothyroidism is critical for normal ovulatory functions and fertility. We found that the presence of hypothyroidism increases the risk of infertility. Therefore, thyroid screening for females must be an important part of an infertility workup.