

Role of thyroid stimulating hormone in primary and secondary infertility

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Abstract

Background: Infertility is a major problem worldwide that affects society in many aspects including psychological issues. This condition is usually raised due to imbalance of fertility hormones resulting in anovulation. In addition to disturbance of fertility profile thyroid ailment is one of the most common endocrine disorders causing infertility. **Method:** The hormonal assay for serum Thyroid Stimulating Hormone was performed in diagnosed patients with primary and secondary infertility from infertility clinic of tertiary care hospital from SPH/BMCH Quetta, Pakistan. The assay of fertility hormones was performed by using Enzyme Linked Immunosorbent Assay technique. The study was conducted in 50 infertile women out of which 15 patients were with primary infertility and 35 patients were with secondary infertility. Furthermore, their comparison was made with 10 healthy fertile women as control group. **Results:** 50 patients diagnosed as primary and secondary infertile along with 10 healthy controls were included in this study. The mean serum level of TSH in patients with primary infertility was 0.36 ± 0.04 mIU/L, in patients with secondary infertility the mean level of serum TSH was 0.29 ± 0.02 mIU/L and in control group the mean level of serum TSH was 2.38 ± 0.51 mIU/L which showed statistically significant difference. The mean serum levels of fertility hormones measured in patients with primary fertility were as, LH 4.61 ± 0.211 , FSH 3.905 ± 0.315 mIU/mL and E2 28.12 ± 2.072 pg/ml. The mean serum levels of fertility hormones measured in patients with secondary fertility were as, LH 4.831 ± 0.061 mIU/mL, FSH 3.502 ± 0.422 mIU/mL and for E2 28.12 ± 3.188 pg/ml. Whereas, in control group the levels of fertility hormones measured were as, LH 3.26 ± 0.404 mIU/ml, FSH 5.911 ± 0.355 mIU/ml and E2 36.181 ± 3.494 pg/ml. **Conclusion:** These results showed statistically significant difference in levels of serum TSH in patients with primary and secondary infertility compared to control group and similarly, the results of hormone levels in patients with primary and secondary infertility compared to control group showed statistically significant difference. Our data showed that the incidence of primary and secondary infertility is associated with reduced levels of serum TSH which is a condition of hyperthyroidism.

Biography:

Faraz Bakht is currently residing at the College of Physicians and Surgeons, Pakistan. He has successfully published several papers related to the area of designing new nanomaterials for catalysis applications.

References

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