

## Thyroid status in diabetes mellitus

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### Abstract

The study was carried out to estimate thyroid hormones (T3, T4 and TSH) level in diabetic patients and to compare it with normal controls. And, also to find out the importance of thyroid hormone estimation in diabetic cases. Sixty cases of diabetes mellitus who attended Diabetic clinic, RIMS hospital during the period from October 2008 to March 2010 were taken as case. Thirty healthy individuals were selected as control group. Serum total Tri-iodothyronine (T3), thyroxine (T4), thyroid stimulating hormone and blood sugar were estimated in the cases and controls. The study showed that diabetes was more prevalent in the age group of 51-65 years and more in males (52%). The mean fasting blood sugar ( $126.17 \pm 37.92$  mg%) and serum TSH level ( $4.58 \pm 2.90$  mIU/L) were increased significantly ( $r = 0.884, p > 0.05$ ) whereas serum T4 level ( $5.79 \pm 4.39$  µg/dl) was decreased in diabetic cases when compared with controls. Mean T3 level of diabetic cases was higher than controls but it was insignificant. Diabetes mellitus cases with statistically significant higher TSH value have complications like hypertension, retinopathy, nephropathy etc. A statistically significant, negative correlation ( $r = -0.942, p < 0.05$ ) was seen between Serum T4 and blood sugar in the cases. Therefore, routine assessment of thyroid hormone level in addition to other biochemical variables in the early stage of diabetes will help patients to improve their health and reduce their mortality rate.