

## Comparative Study of Thyroid Hormone Levels in Type I & Type II Diabetes Mellitus

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### Abstract

**Background:** Diabetes Mellitus (DM) is a chronic disorder in which there is impaired metabolism of carbohydrate leading to development of various complications. DM is due to lack of insulin secretion by pancreas leading to hyperglycemia & metabolic derangement. It is leading cause of both mortality & morbidity. **Aims :** To evaluate & assess thyroid hormones ( $T_3$ ,  $T_4$ , TSH) as most suitable parameter for prognosis & treatment of diabetic patients. **Materials & Methods:** The present study was carried out in Department of Biochemistry, GMCH, Nagpur from May 2003 to May 2005, selected from diabetic OPD, GMCH, Nagpur in the age groups of 15 to 80 years. In all 30 controls, 30 type I DM & 30 type II DM patients were selected. The serum thus obtained was used for the estimations of thyroid hormones by ELISA method using Teco Diagnostics Kits. **Results:** The present study showed highly significant increase in  $T_3$ ,  $T_4$  & decrease in TSH in Type I DM & Type II DM when compared with controls. **Conclusions:** Determination of changes in  $T_3$ ,  $T_4$  & TSH can be considered as valuable diabetogenic factors which result in abnormal glucose metabolism.