



## The Histological structure of Thyroid gland and the relationship between the hyperthyroidism and total protein, albumin, globulin, liver enzymes and some minerals deficiency

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**Abstract :** The cross comparative present study was conducted out on the hundred patients were suffered from hyperthyroidism in the hospitals of four governments (Karbala, Babylon, Dywania and Najaf). This work was extend from September (2014) to fibruary (2015), which involved both females and males at ages were ranged (15-70) year old. The preset study was designed to identify the relationship among hyperthyroidism and many factors such as hormonal, mineral, liver enzyme, albumin, globulin and total protein. Our findings in all govnrments were investigated the feale patients with hyperthyroidism had more percent, in Karbala(76%) , Babylon (68%), Dywania (68%) and Najaf (68%) when compared with male patients percent (32% in Dywanian, Babylon and Najaf) while in Karbala was (24%). The age factor was noticed, that the age group (26-40) years were exposed to hyperthyroidism in both females and males. Thyroid gland Also the present study was pointed at variance in the mineral (calcium, potassium and phosphor), total protein and liver enzyme (Got and GPT) with hormonal assay (T3 , T4, TSH) in the biostatistical analysis, such as person correlation and P value. As well as this cross comparative study was appeared relation between and within groups of patients by used the (ANOVA). Our observations was revealed significance value between total protein and level of thyroxin (T4) and T3 (Triiodothyronine), from another hand , there was high significance value between calcium and thyroxin, also between total protein and thyroxin, but that found significance value between potassium and total protein with thyroid stimulating hormone (TSH) Relationship between hyperthyroidism and total protein, albumin, globulin, liver enzyme and some mineral deficiency.

**Keywords:** Thyroid gland, Histological structure, hyperthyroidism, total protein, albumin, globulin, liver enzymes, mineral deficiency.