CHAPTER (VI)

SUMMARY AND CONCLUSION

1. The present study was carried out at the Department of General Surgery and Endocrinology Unit, Benha University Hospitals in the period from 1987 to 1990. It included :-

   20 cases : Control group.
   14 cases : Toxic goiter group.
   26 cases : Simple nodular goiter group.
   10 cases : Malignant goiter group.

2. Clinical assessment of all the cases were performed including general and local examination.

3. Radiological examination was done to assess bone changes. Also plain X-ray and intravenous pyelogram were done to detect any stones or changes in urinary tract.

4. Operation was performed for:

   11 cases of toxic goiter group.
   20 cases of simple nodular goiter group.
   6 cases of malignant goiter group.

5. Histopathological examination was done to all the removed specimens to prove the diagnosis.

6. Biochemical studies were done including serum proteins, serum calcium and serum inorganic phosphorus before and after operation.

7. Hormonal studies were carried out including serum total thyroxine (T_4), serum triiodothyronine (T_3) and serum parathyroid hormone (Si PTH) before and after operation.

8. In cases of toxic goiter before the operation there was a significant increase in serum calcium and serum phosphorus, but there was a significant decrease in serum parathyroid hormone. Also there was a positive correlation between serum T_4, T_3 and serum calcium and inorganic phosphorus. This indicated that the increase of serum calcium and inorganic phosphorus was due to the increase in serum T_4 and T_3. There was also a negative correlation between serum calcium and serum parathyroid hormone and this indicated that the decreased serum parathyroid hormone was due to increased serum calcium. From these data one can conclude that parathyroid function decreases in hyperthyroidism and in support of this view is the return of

serum calcium, serum phosphorus and serum parathyroid hormone to normal after operation.

9. After operation for malignant goiter there was decrease in serum calcium and Si PTH and this can be explained by injury or removal of parathyroid glands during operation. No changes occur before operation.

10. In simple nodular goiter group there were no changes in all parameters before and after operation.

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