SUMMARY

Forty five patients with thyroid enlargement (simple and toxic goitre) were subjected to partial thyroidectomy, subtotal thyroidectomy and resection enucleation. During operation the pathology was confirmed and the parathyroid glands were identified for their site and number in patients subjected to massive resection of thyroid tissue as in subtotal and partial thyroidectomy but not in resection enucleation. Gross and microscopical examination of the removed specimen of the thyroid tissue was performed to exclude other thyroid diseases.

All patients were subjected to routine preoperative clinical examination and investigations (full blood picture, blood urea, blood and urine creatinine, serum and urine calcium, serum and urine phosphorus and stool and urine analysis).

In this work, serum calcium and phosphorus, urinary calcium and phosphorus were determined one day preoperative and 3 days, 1 week, 3 months and 6 months postoperatively.

From this study it could be concluded that hypercalcaemia was evident in thyrotoxicosis, while there was transient hypocalcaemia following thyroidectomy, which returned nearly to the normal level within six months. This was suggested to be due to removal of the additional stress on the calcitonin secreting system due to hyperthyroid excess bone resorption and shrink of the calcium pool to the normal size upon treatment.