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A CASE SERIES OF PARATHYROID ADENOMA

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ABSTRACT

The cause of hyperfunction of parathyroid glands is in majority of cases is parathyroid adenoma ,followed by hyperplasia,and carcinoma only in 1 to 2% of cases.The frequency of primary hyperparathyroidism is 1/1000 individuals in general population. Here we present our experience of 4 parathyroid adenoma cases presenting with variable nonspecific symptoms causing difficulty in diagnosis.All 4 cases were treated with parathyroid adenoma excision without removal of thyroid gland.

KEYWORDS

parathyroid adenoma,,hyprerplasia, parathyroidectomy

INTRODUCTION-

Adenoma is major cause of hyperfunction of parathyroid glands, other causes being hyperplasia and carcinoma (1 to 2%)[1,2]. The frequency of primary hyperparathyroidism is 1/1000 individuals in general population. In patient with primary hyperparathyroidism of benign etiology, the ratio of female/male is 3:2 while in patient with carcinoma of parathyroid is 1:1[3].The main sign of disease is hypercalcemia caused by an increased amount of parathormone. Its effect on tubular epithelium causes phosphaturia, kaliuria and natriuria, with retention of calcium, magnesium and hydrogen, which results in hypophosphatemia and hypercalcemia[4].

CASE 1 -

A 51 years old female referred to ENT department with complaints of poor appetite, nausea and vomiting, constipation, joint pains since 6 months. Patient gave history of intake of ATT for cervical lymphadenopathy of tubercular in origin 6 months back. There was no history of hypertension , diabetes ,CAD or thyroid disorders.

On clinical examination, patient was afebrile. Lungs and heart were normal, abdomen was soft and non tender. There was no significant cervical lymphadenopathy. Serum calcium was 13 mg/dl (High), Serum PTH was 577pg/ml (High),25-OH VIT-D levels were 36.4 ng/ml (Normal).Remaining investigations are within normal limits. USG Showed a nodule, lateral and below the right lobe of thyroid, measuring 17x8.5 mm. MRI of neck showed mass lesion in right side of the neck postero-inferior to the right lobe of thyroid. Scintigraphy of parathyroid glands showed an intensive accumulation of radioisotope next to thyroid gland, and laterally down under lower pole of right lobe of thyroid, which most probably correspond to hyperactive parathyroid gland(Figure 1).

Diagnosis was confirmed as parathyroid adenoma of right inferior parathyroid gland. For which excision of parathyroid gland was planned. Minimal collar incision on the right side of the neck given.Right thyroid gland was exposed. Right inferior parathyroid nodule was exposed which was coinciding with radiological investigation .Other parathyroid glands are inspected and found normal. Parathyroid nodule removed(Figure 2).

Post operatively patient developed hypocalcemia, required ICU admission and recovered on conservative management with calcium gluconate. On discharge, patient had no sign and symptom of hypocalcemia. Serum calcium and serum PTH level normal. Histopathology examination of specimen reported as parathyroid adenoma.

CASE 2-

50 year old male from Manipur presented with recurrent multiple kidney stones and diagnosed as right inferior parathyroid adenoma. He underwent right hemithyroidectomy.post operative period went uneventful.

CASE 3-

48 year old female presented with abdominal pain and anxiety and diagnosed as left superior parathyroid adenoma. He underwent left superior and inferior parathyroidectomy. Postoperative period went uneventful.

CASE 4-

51 year old female presented with constipation and joint pain diagnosed as right inferior parathyroid adenoma. He underwent right inferior parathyroidectomy and later right hemithyroidectomy. Postoperative hypocalcemia noted in this case, which was managed with calcium gluconate injection.

DISCUSSION-

Ali Azghar et al, reported a case of Giant Cystic Parathyroid adenoma presenting with parathyroid crisis after Vitamin-D replacement.They removed parathyroid adenoma with excision of left thyroid gland[5]. Augustus H Foster et al reported a case of parathyroid adenoma with unusual clinical features[6]. In his case parathyroid gland was removed without excising thyroid gland as we have done in our cases.Post Operative Hypocalcemia not noted in both the above case studies, however hypocalcemia occurred in our case which was transient and patient recovered after three days of calcium gluconate therapy.

CONCLUSION-

From our experience of 4 parathyroid adenoma cases we noticed that if we deal such asymptomatic or non specific symptoms with hypercalcemia patients with high degree of suspicion for possibility parathyroid adenoma,it helps in better management of these type of cases. Also,we conclude that parathyroid adenoma can be excised alone without excision of thyroid gland as it decreases the chance of occurrence of complications such as alteration in thyroid profile following thyroid gland removal.

FIGURES-

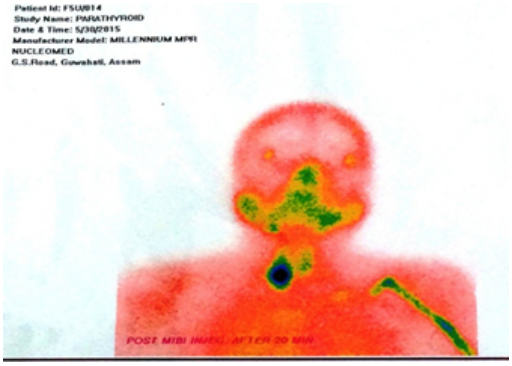

Figure 1- Scintigraphy of parathyroid glands showed an intensive accumulation of radioisotope next to thyroid gland, and laterally down under lower pole of right lobe of thyroid, which most probably correspond to hyperactive parathyroid gland

Figure 2- Excised specimen of right inferior parathyroid nodule.

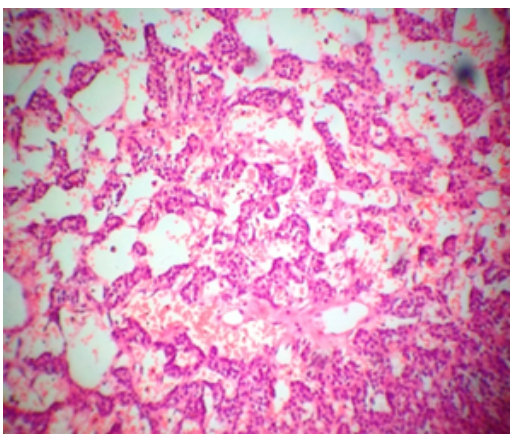

Figure 3- Histopathology slide confirming parathyroid adenoma.

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