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UNUSUAL CASE OF UNCONTROLLED HYPERTENTION

General Surgery

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ABSTRACT

Pheochromocytomas rare neuroendocrine tumors that arise from chromaffin-cells in the adrenal medulla. Pheochromocytomas have an estimated prevalence of up to 5% of adults presenting with adrenal incidentalomas.
Reported is a case of a 54 Year old patient admitted with, Excessive sweating and giddiness for 20 days,Lower urinary tract symptoms for 15 days, LAB INVESTIGATIONS showed: NorepinephrineLevel:2690 picogram/ml, Metanephrine level:1276 picogram/ml, 24 hour VMA level:16.8mg/24 hours, Sr. Cortisol level:0.4 Microgram/DeciLitre .On examination Blood pressure was raised. Rest examination was normal. RBS-234mg/dl. USG(A+P) -consistent with Pheocromocytoma .CT scan revealed ? Pheocromocytoma. PET Scan showed left supra-renal mass compatible with Pheocromocytoma. Preoperatively the patient was given Alpha and Beta blockers for 7 days Intraop the patient was on phenoxibenzamine drip.Laparoscopic left adrenalectomy was performed. Postoperatively;B.P and RBS was normal.

KEYWORDS

Pheocromocytoma, Neuroendocrine Tumor, Metanephrines, Norepinephrine

CASE SENARIO-A

54 Year old patient was admitted in medicine ward with, Excessive sweating and giddiness since 20 days .Passing excess amount of urine since 15 days and was known diabetic and hypertensive

Table 1

NorepinephrineLevel	**:2690 picogram/ml**
Metanephrine level	**:1276 picogram/ml**
24 hour VMA level	**:16.8mg/24 hours**
Sr. Cortisol level	**:0.4 Microgram/DeciLitre**

On examination Blood pressure was 220/110, rest all general and systemic examination was normal .

Lab investigations revealed RBS-234mg/dl

USG(A+P)-well defined rounded to oval heterogenic lesion superomedial to upper pole of left kidney-consistent with Pheocromocytoma.

CT scan was done for the patient which revealed Well defined echogenic hypovascular lesion approx(73x55x39mm) seen in the left para-aortic region and antero-superior to left renal vessels.lesion is solid with few cystic areas,displacing adjacent vessels? Pheocromocytoma

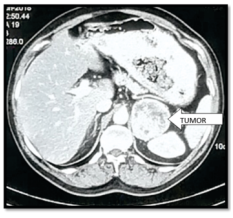

Figure1. CT Abdomen with pelvis

PET Scan was done later which showed weakly metabolic enlarged left supra-renal mass compatible with the diagnosis of Pheocromocytoma.

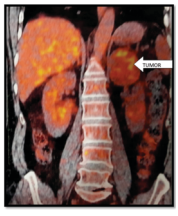

Figure2. PET SCAN showing tumor

The patient was operated for the same condition.
For preop preparation the patient was given Alpha and Beta blockers for 7 days and B.P controlled.

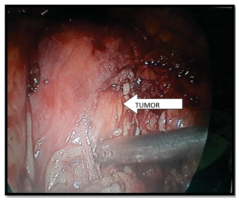

Figure3. Intra operative image of tumor

Intraop the patient was on phenoxibenzamine drip. Laparoscopic left adrenalectomy was performed

Postoperative status;
B.P-128/78 mm of Hg(normal)
RBS-102 mg/DL (normal)

The specimen removed was sent for Histopathological examination which showed- Encapsulated tumor arranged in small nests .extensive areas of hemorrhage and focus.no evidence of malignancy/atypia

DISCUSSION

Pheochromocytomas and paragangliomas (PGGL) are rare neuroendocrine tumors arise from chromaffin-cells in the adrenal medulla and extra-adrenal autonomic ganglia respectively.

Pheochromocytomas account for 80–85% of the chromaffin cell-derived neoplasms.

Paragangliomas are less frequent, accounting for 15–20% of these tumors[1]

Affecting all age groups, however, a peak incidence in the forth to fifth decade has been reported[2]. sporadic in 70% of the cases or hereditary. Tumors often solitary (90–95%) and only a minority of the patients harbor a malignancy. Up to 95% of these tumors are located within the abdominal cavity, however, PGGL can virtually occur anywhere from the base of the brain to the urinary bladder[3]

Pheocromocytoma causes release of catecholamines which inhibit insulin secretion (resistance) via alpha-2 receptors, accelerate glucagon release, decrease glucose utilization in skeletal muscles and accelarate fat metabolsim

Around 50% are asymptomatic and may be either diagnosed incidentally during an imaging procedure not directed to the adrenal (adrenal incidentaloma) or post-mortem[4]

For bilateral Pheochromocytomas, cortical sparing bilateral adrenalectomy is recommended[4]. Genetic testing should be considered for all patients with Pheos and PGGL.

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