EP613

Silent Incidental Adrenal Pheochromocytoma

Introduction:

The widespread use of abdominal ultrasound, computed tomography (CT) and magnetic resonance imaging (MRI) has led to a predictable rise in the discovery of incidental adrenal lesions, some of which will be silent pheochromocytoma .Thus about ten percent of pheochromocytoma cases were diagnosed incidentally .

Methods:

We studied retrospectively the notes of 23 patients with histologically confirmed pheochromocytoma . Demographic information, pre-existing medical conditions, and the presence of classic pheochromocytoma symptoms were recorded. The aim of our study was to investigate the clinical characteristics and functional status of those who were asymptomatic.

Results:

We recorded seven patients with silent pheochromocytoma (30 % of confirmed pheochromocytoma). Mean patient age at presentation was 39 ± 11 years. No patient had a documented hypertension . A hypokalemia is found in only one patient .The seven patients had unilateral enlargement on the left side.

The circumstance of detection was incidentaloma investigation in all cases ,except for the patient number2 (Table 1) the adrenal mass was discovered intraoperative during surgery for a nephrolithiasis . This Last , during adrenalectomy, developed paroxysmal hypertension which was readily controlled by intravenous administration of nitroprussiate .

Table 1 : Characteristics summary of the seven patients

	Age (years)	Gender	circumstances of discovery	Diameter (cm)	Washout (%)	urine fractionated metanephrine
Patient 1	54	F	Incidentaloma	4,5	60	2 times above normal
Patient 2	35	M	Histologic founds	6	-	-
Patient 3	28	M	Incidentaloma	3,9	46	2 times above normal
Patient 4	38	F	Incidentalooma	6	NP	4 times above normal
Patient 5	32	F	Incidentaloma	3	66	normal
Patient 6	28	M	Incidentaloma	3,2	53	4 times above normal
Patient 7	56	M	Incidentaloma	4	60	ND

The Average maximum tumor diameter, as detected by CT was 4,2 ± 0,9 cm. Mean Washout on delayed enhanced CT was 64 ±14 %. All the adrenal masses were heterogeneous and necrotic in 4 cases .

The urine fractionated metanephrine measurements were elevated at least 2 to 4 times above normal levels in 5 cases .

All patients underwent surgical resection . In all cases ,the pheochromocytoma was benign as histologic founds .

Discussion :

Incidentally discovered pheochromocytomas are diagnosed in many patients before any symptoms develop. The number of incidentally discovered pheochromocytoma is increasing, and reaches nearly 30% in our study population . In two recent studies, 19 of 33 patients (57.6%) (1) and 19 of 46 patients (41%) (2) with adrenal pheochromocytoma had tumours discovered incidentally on imaging, however these were rather small cohorts.

The prevalence of an asymptomatic pheochromocytoma is estimated to be 11-21% (2,3), and retrospective studies have failed to define difference in demographic, radiographic, and pathological characteristics in sporadic tumours .

In accordance to another study (3), patients with incidentally discovered pheochromocytoma in our study were significantly younger than the patients with findings indicative of catecholamine excess. We found a trend towards larger pheochromocytomas in patients with incidental finding. In contrast, the study by Amar et al did not find a difference in tumour size between incidentally and suspected finding, but showed that patients with incidentaloma had lower plasma catecholamine concentrations than patients with adrenergic symptoms.

conclusion :

Our study confirms the great variability of the clinical picture of pheochromocytoma and that classical symptoms are far more infrequent . Most likely due to improvement in availability and accessibility of imaging techniques, the number of incidentally discovered pheochromocytoma is increasing further indicating the necessity for sufficient screening for catecholamine excess in all patients with adrenal incidentaloma.

References

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