The Shrewsbury and Telford Hospital NHS
NHS Trust

Unexpected Adrenocortical Carcinoma 8yrs after Diagnosis of Adrenal Incidentaloma

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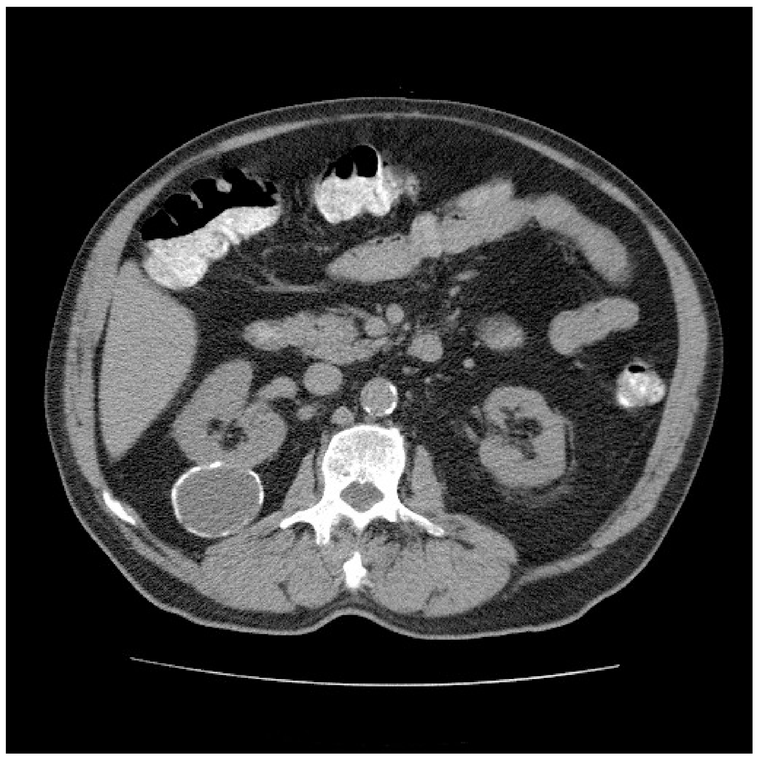
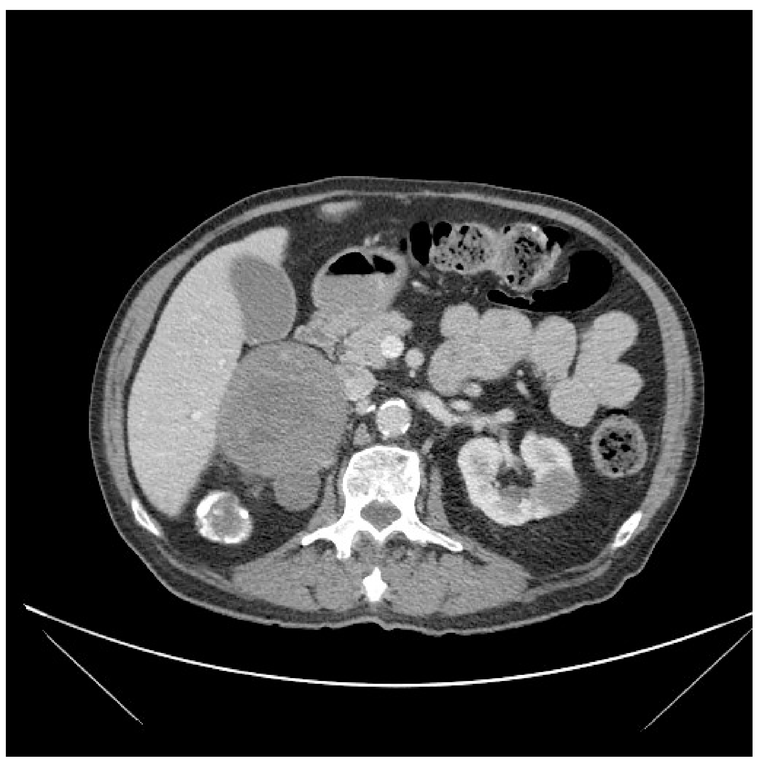
Adrenal incidentalomas (AI) are incidentally discovered adrenal masses on imaging studies requested for reasons unrelated to adrenal pathology with a prevalence of 8% in autopsy and 4% in radiologic series. Although most AI are non-functioning benign adenomas, their increasing prevalence presents diagnostic and therapeutic challenges. We report a case of Adrenocortical Carcinoma (ACC) in an asymptomatic 83yr old man, 8 years after being diagnosed with AI. ACC is an uncommon malignancy carrying a high mortality.

In accordance with current guidelines, the AI was followed up with sequential CT at intervals of 6,12 & 24 months which measured 2.0 cm throughout. Biochemical testing revealed only incomplete cortisol suppression with low dose dexamethsaone. Some 8yrs later, he had a staging CT in view of a non-healing tongue ulcer which showed a prominent right adrenal mass measuring up to 9.0cm.



a) 2.0cm Rt Adrenal Incidentaloma on CT done at diagnosis



b) 9.0cm Rt Adreno Cortical Carcinoma on CT 8yrs later

The radiological characteristics were suggestive of ACC and in addition a low attenuation lesion was identified in the liver. Repeat biochemistry showed persistent subclinical hypercortisolism and normal plasma catecholamines. Right laparoscopic adrenalectomy was performed with uncomplicated postoperative recovery.

Six months later, he presented with haemoptysis and CT abdomen showed progressive liver metastases requiring chemotherapy (Mitotane). We have reviewed the guidelines from the literature including AAES & AACE(2009), ACR(2012), NIH(2002) which limit follow-up recommendations of small AI to 5years.

The initial size of adrenal lesion would have hardly warranted surgical intervention on size criteria alone. This patient had Subclinical Cushings Syndrome (SCS) but data from randomised trials are lacking to guide the optimal management of SCS. A postulated strategy is to consider adrenalectomy for younger patients (<40 yrs) and those with disorders that are potentially attributable to autonomous glucocorticoid secretion (recent onset or worsening of underlying hypertension, diabetes mellitus, obesity or osteoporosis).

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