

Puzzling adrenal masses in a patient with hypertension

Authors: K Millar, SY Sim, JSW Li Voon Chong

Hospital: Department of Endocrinology, Royal Hampshire County Hospital, Winchester

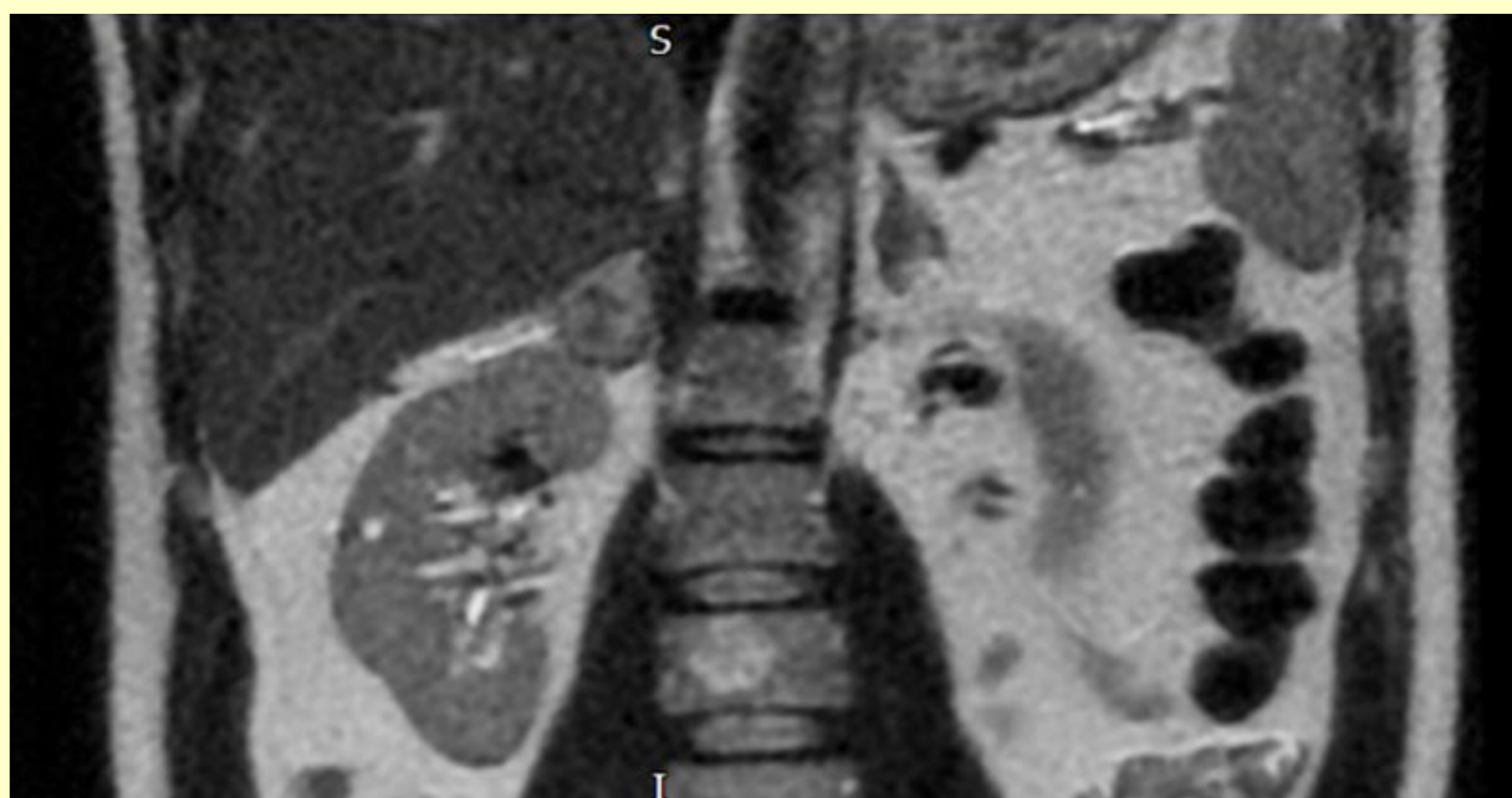
A 42 year old male was referred to the endocrine clinic with accelerated hypertension (190/110mmHg) and an elevated aldosterone renin ratio (59). CT adrenal scan revealed a 16mm diameter mass in the posterior limb of the right adrenal gland(1) which was confirmed to be hyperfunctioning through adrenal vein sampling.

Laparoscopic adrenalectomy was performed and histology confirmed cortical adenoma of the right adrenal gland consistent with Conn's syndrome.

His BP initially normalised post operatively and biochemically his Conns' syndrome had been cured.



(1)CT Adrenals showing 16mm right adrenal mass



(2)MRA renal arteries showing 26mm right adrenal mass

His RUQ pain and difficulty controlling his BP persisted so he had a repeat CT A/P five months later which revealed a 35mm soft tissue lesion in the right suprarenal region thought to represent haematoma or recurrent tumour(3). Over the next 2 years further imaging with another CT and MRI scan showed no significant change in the right suprarenal mass. The cause for this mass was unclear; the expectation was that a haematoma would have completely resolved over this time and therefore it was felt to be more in keeping with an adrenal tumour although biochemically there was no evidence of hypersecretion.

At this point it was decided to perform further exploration with a view to biopsy. In fact this revealed a cricket ball size inflammatory mass around what was essentially his original surgical (absorbable haemostatic material from his surgery). Histology confirmed a fibrotic/foreign body reaction. Post operatively his pain has now almost resolved.

This case illustrates 3 different causes of an adrenal mass in the same patient.

However over the next 4 months post operatively his BP subsequently increased to the point of requiring four antihypertensive agents. He also complained of deep seated RUQ pain.

MRA of renal arteries showed no evidence of renal artery stenosis but surprisingly showed a right adrenal mass measuring 26mm in size(2). This was despite successful surgery, consistent histology and normalised aldosterone and renin levels post operatively.

After discussion at the surgical MDT it was agreed to proceed to a repeat exploration which revealed an organised haematoma behind the vena cava. Surgical evacuation was carried out but limited due to its position welded to the vena cava.



(3)CT Abdomen Pelvis showing 35mm suprarenal lesion