

A misleading adrenal tumour

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Background

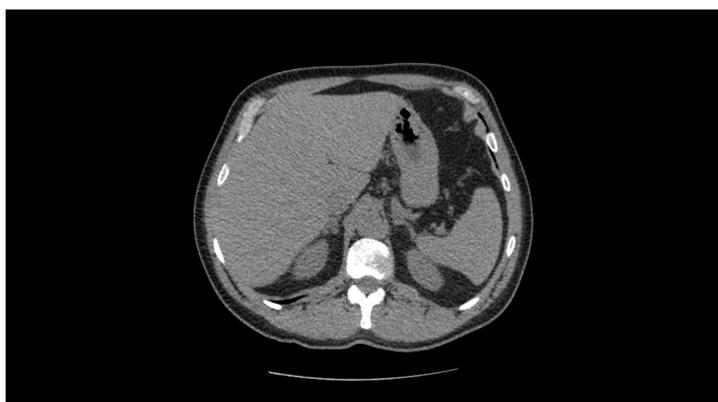
58 year old male with hypertension since 2002 was initially treated with Furosemide and Bendroflumethiazide. Both were stopped due to hypokalaemia. BP was controlled with Ramipril, Atenolol, Doxazosin and Amlodipine. He has no other past medical history other than hypertension and drinks 10-20 units of alcohol per week. On examination he had ankle oedema, some patches of vitiligo but no features suggestive of Cushings' syndrome

Investigations

Sodium 140 mmol/L	Aldosterone 250 ng/L
Potassium 2.7 mmol/L	Renin < 2.3
Creatinine 73 umol/L	Renin : Aldosterone ratio > 108
24 hour Urine Catecholamines x2- normal	

Radiology

CT Abdomen: 8 mm rt adrenal adenoma



Adrenal Vein sampling

	Left Renal V.	Left Adrenal V.	Right Renal V.	Right Adrenal V.
Aldosterone	349	>34340	477	411
Cortisol	248	8809	534	559
DHEA-Sulphate	7.7	9.2	8.3	7.9
Androstenedione	39.2	>70	44.0	0.74

Discussion

He had biochemical hyperaldosteronism and CT scan showed a 8 mm right adrenal adenoma. In the first MRI, adrenals were not clearly seen due to movement artifact so after discussion in the local Urology MDT a repeat MRI was advised. This did not show definite mass in either of the adrenal glands. As the radiology tests were unsuccessful in localizing the adenoma, adrenal vein sampling was done and the results are shown above.

Conclusion

This shows that the hyperfunctioning adrenal was on the left rather than the right which was initially suggested by the CT scan. This case demonstrates the value of using adrenal vein sampling to localize the hyperfunctioning gland in the absence of definitive and potentially misleading adrenal imaging.