

### The man with two concurrent pituitary tumours

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A 43-year-old man presented with aching legs, gynaecomastia, erectile dysfunction, central obesity, and generalised hair loss. Examination confirmed these findings as well as showing him to be hypertensive at 160/100 mmHg. Routine haematology and biochemistry as well as levels of anterior pituitary hormones were normal, except for an inappropriately low TSH in the face of normal T3 and T4 levels. A pituitary MRI showed the presence of an ill defined area of reduced signal intensity on the left side. This was reported as showing a small adenoma.

He was lost to follow-up for a year and represented to his GP with continuing similar symptoms. His GP arranged for a 24 h urinary free cortisol measurement, which was raised at 2700 nmol/l, (ULN 300 nmol/l). Low and high dose dexamethasone suppression tests suggested the presence of pituitary dependent Cushing's disease. He had a repeat MRI scan with a dynamic study. However, this showed the presence of a lesion in the centre of the gland, away from the lesion in the first scan.

He underwent petrosal sinus sampling to try and clarify the position of the ACTH secreting adenoma. The results of the ACTH levels are shown.

Time (min)	Left (ng/l)	Right (ng/l)	Periph (ng/l)
0	115	1091	102
5	1622	>6250	137
10	1245	6160	62

At operation the pituitary gland was removed, and he was found to have 2 separate pituitary tumours, one of which stained positive for ACTH secretion, the other for prolactin.

Pituitary adenomas are not uncommon. With more powerful imaging techniques and better resolution, incidental findings are increasing. However, the case presented, is to our knowledge, the first description of 2 concurrent pituitary tumours picked up on imaging, each staining for different hormones.

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