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A 52-year-old man with headaches

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Session: Disorders of the hypothalamus and pituitary

A 52-year-old gentleman presented to his GP with headaches localizing to the left fronto-orbital region. He was previously fit and gave no history suggestive of raised intra-cranial pressure or visual disturbance. Noting his BP to be elevated, his GP suggested anti-hypertensive agents and referral to the ENT team, whom he saw privately.

MRI scan performed at that time showed an extensive mass 3.9x5.2cm arising from the clivus and extending through the pituitary area, filling the sphenoid sinus and extending into the left middle cranial fossa. Appearances were felt to be consistent with a long-standing lesion, possibly chordoma, with metastatic deposit being less likely.

He was referred to the neuro-surgical team for trans-nasal, trans-sphenoid biopsy and CT sinuses. This showed a large mass filling the pituitary fossa and extending into the sphenoid sinus. Biopsies showed a malignant-appearing tumour. Immuno-histochemistry was suggestive of a neuro-endocrine carcinoma or an invasive pituitary adenoma, and the samples were sent to the regional centre for further analysis. The patient was referred to the oncology team for further assessment and treatment.

When the supplementary histology report was received, the sample had stained strongly for prolactin, and negative for other pituitary hormones, suggesting a prolactinoma. The patient was referred to the Endocrine Unit for further assessment. He admitted that he had noticed some deterioration in his vision, but had had no refractive error on testing at the optician.

Visual field assessment showed loss of the temporal field in the left eye. Blood tests showed normal thyroid function, slightly suppressed gonadotrophins, and a serum prolactin >318000 (NR 60-380). He was commenced on cabergoline and reported at first follow-up that he felt better. Repeat serum prolactin after 3 weeks of therapy was 34980. Repeat visual fields and MRI will be carried out after 2 months of treatment.

Although he has no current evidence of metastatic spread, the size of the tumour and invasion into the sphenoid sinus put him at greater risk of developing prolactin carcinoma. This is a very rare complication of pituitary tumours and often occurs several years after the initial diagnosis and carries an extremely poor prognosis. This gentleman will require regular follow-up to detect any transformation in a timely manner.