Large pituitary colloid cyst causing visual and hormonal defects

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DESCRIPTION

An 80-year-old woman with a background of hypothyroidism, poor mobility and previous deep vein thrombosis of the lower limb presented to hospital following a fall and hypoglycaemia. Further investigations found her to have adrenal insufficiency and low or undetectable serum thyroid stimulating hormone and gonadotrophins. To investigate the cause of the low pituitary hormones, she underwent an MRI and CT scan of her pituitary with contrast (figures 1 and 2). This revealed a large predominantly cystic and a small solid component mass in the pituitary fossa with a suprasellar component compressing the optic chiasm. The hypointense area seen in the pituitary lesion on the T2-weighted MRI (figure 2) represents calcification that is seen in colloid cysts. However, the hypodensity of the lesion on CT is rare of colloid cysts (figure 2). Despite her reporting no visual problems, Goldmann visual fields detected a temporal visual field defect. To prevent further compression of the chiasm and deterioration of vision, the patient opted for surgical excision of the cyst. This was carried out via the endoscopic endonasal transphenoidal route. Intraoperative findings were that of a colloid cyst with its golden shining and gelatinous consistency (figure 3). On histology, the specimen was largely colloid material with some necrotic and inflammatory cells, consistent with the impression of a colloid cyst.¹ There was no viable cyst wall in the specimen, with no epithelioid cells at multiple

Figure 3 Endoscopic view of the gelatinous golden material extruding out of the pituitary fossa.

Figure 4 Postoperative MRI scan shows no residual disease, and the completely decompressed chiasm.

levels. Postoperative MRI showed complete excision of the cyst (figure 4). The patient's vision has

Figure 1 Preoperative T1-weighted MRI with gadolinium showing an elevated optic chiasm (arrow).

Figure 2 Preoperative CT (left) and T2-weighted MRI (right) images further characterising the pituitary lesion.

Patient's perspective

No headaches at all. Before the op, lots of headaches. Vision improved. Pain on one side of my face now gone.

Learning points

- ▶ Pituitary lesions can be solid or cystic, and although very rare, a differential of such cystic pituitary lesions include a colloid cyst.
- ▶ They can cause compression on the optic chiasm and cause hypopituitarism by mass effect on the pituitary.
- ▶ It is important to test the visual fields in patients with pituitary lesions even though they report their vision as being normal, as there can be subtle temporal visual field defects picked up as an early sign.

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improved on Goldmann's field- testing. She will have surveillance MRI scanning to check for recurrence.

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