Pituitary Abscess Mimicking as Sellar Mass

Sir,

In a patient with pituitary dysfunction and sellar mass lesion on imaging, pituitary adenoma is the most common possibility. Pituitary abscess, though uncommon, can have a similar presentation. Owing to wide variety of atypical presentations and rare occurrence, the diagnosis of pituitary abscess is difficult. Here we present the details of a patient suspected to have a pituitary adenoma, but finally diagnosed with pituitary abscess.

A 23-year-old lady presented with history of secondary amenorrhea, headache and painless progressive loss of vision. There was no history of fever or vomiting, appetite remained good and there was no weight loss. On examination, she was afebrile, blood pressure was 104/70 mm Hg, no orthostatic hypotension. Visual field assessment revealed bitemporal hemianopia. There were no signs of meningeal irritation. Contrast enhanced MRI revealed 24 × 23 × 21 mm sellar mass with peripheral enhancing rim on T1 weighted image with suprasellar extension causing indentation of optic chiasma [Figure 1a]. T2 weighted image revealed inhomogeneous hyperintense lesion with areas of cystic degeneration. Hormonal analysis revealed moderately raised serum prolactin of 44.75 ng/ml (1–27). Fasting 8 am serum cortisol of 13.21 μg/dl (10–25), total T3 of 1.01 ng/ml (0.7–2.5), total T4 of 10.79 μg/dl (4–13), TSH of 2.03 μIU/ml (0.5–6.5), LH of 7.72 IU/L (2–10) and FSH of 8.56 IU/L (2–10).

On the basis of clinical features and investigations, possibilities of pituitary macroadenoma or craniopharyngioma were considered. Patient was taken up for trans-sphenoidal resection of mass. During surgery, creamy thick pus was drained from the cystic lesion. Histopathological examination of drained pus revealed the presence of inflammatory cells. No acid-fast bacilli were detected. Upon culture of the specimen, no microorganisms or mycobacteria could be detected. She received broad spectrum antibiotics and hydrocortisone in the perioperative period. She developed diabetes insipidus (serum osmolality = 300 mOsm/kg, urine osmolality = 142 mOsm/kg) in the post-operative period which was managed with oral desmopressin. Serum cortisol was low (7.6 μg/dl) and she was continued on oral glucocorticoid replacement. She reported improvement in headache and visual symptoms, but continued to be amenorrheic. MRI done 3 months after surgery revealed partial empty sella without any residual lesion [Figure 1b].

Pituitary abscess is a rare and life-threatening disorder found in less than 1% of pituitary lesions.[1] It usually results from direct spread from an adjacent infective focus like sinusitis, meningitis or by metastatic spread from a distant focus. It may occur in a pre-existing pituitary lesion like Rathke's cyst, craniopharyngioma, adenoma or may occur *de novo* in a normal pituitary gland. Pituitary abscess has an indolent course and fever and leucocytosis are absent in more than

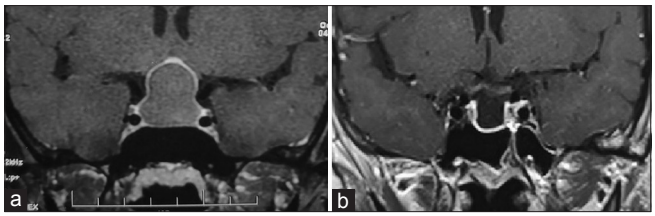

Figure 1: Pre-operative MR imaging of sella showing pituitary abscess (a) and post-operative MR imaging of sella showing partial empty sella (b)

half of the patients.[2] In majority, causative organisms are not isolated, possibly because of earlier antibiotics or presence of fastidious organisms.[3,4] Presence of cystic sellar mass on MRI with a peripheral enhancing rim on administration of contrast medium suggest presence of pituitary abscess.[5] Early surgical intervention and drainage of abscess is the treatment of choice. Though recurrence of lesion is infrequent, high incidence of post-operative hypopituitarism necessitates regular follow-up in these patients.[1,2]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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