A 40-year old woman presented to Endocrine Clinic of Lok Nayak Hospital, Maulana Azad Medical College, New Delhi, India, in April 2012 with three months history of anorexia, asthenia, constipation, lethargy and amenorrhoea suggestive of multiple hormone deficiencies such as cortisol, thyroid and gonadotropins. Pituitary hormone profile showed low cortisol, low T4 and TSH and low LH and FSH. Contrast enhanced MRI (Fig. A and B) revealed a pituitary mass lesion. The diagnosis given by radiologist was pituitary mass lesion suggestive of pituitary macro adenoma. Neurosurgeon considered her for surgery. On closer clinical assessment and evaluation of MR images thickened pituitary stalk and enlarged pituitary gland were found and an alternative diagnosis of autoimmune hypophysitis was kept. Patient was given an empirical trial of glucocorticoids and she improved within a span of two weeks. Based upon clinical, biochemical, radiological features and response to glucocorticoids she was diagnosed as having autoimmune hypophysitis. Subsequently, patient was treated with prednisolone 5 mg daily, thyroxine 75 µg daily and oral contraceptive pills as hormonal replacement therapy.

Autoimmune hypophysitis (AH), not a common entity mimics non secreting pituitary adenomas and can be diagnosed with certainty only histologically. Approximately 40% of these patients are misdiagnosed as having pituitary macroadenoma and undergo unnecessary surgery. AH is principally of two types; lymphocytic and granulomatous. Lymphocytic hypophysitis is more common and has well established autoimmune pathogenesis. It predominantly affects women and occurs during late pregnancy or in the early postpartum period.

Clinically course of AH is sub acute to chronic, and diagnosis is based upon clinical features, hormone profile and characteristic MRI findings. The classical MRI features of AH include a symmetrically enlarged pituitary gland, a thickened nontapering pituitary stalk, an intact sellar floor and post contrast diffuse enhancement. In contrast to AH, pituitary...
macroadenomas are asymmetric lesions displacing the infundibulum and rarely involve the stalk. In addition, macroadenomas appear heterogeneous both before and after contrast medium administration. One of prominent MRI feature in this patient was thickened stalk. A normal pituitary stalk has a transverse diameter of 3.25 ± 0.56 mm at the level of the optic chiasm and measures 1.91 ± 0.4 mm at the pituitary insertion.

The gold standard of diagnosis is tissue biopsy. The treatment of AH includes reducing the mass size of the pituitary along with replacement of deficient hormones. Majority of patients respond well to glucocorticoids. In a patient with pituitary mass lesion autoimmune hypophysitis should also be kept as a differential diagnosis along with pituitary adenoma.

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