SPONTANEOUS RESOLUTION OF A PITUITARY MASS: PROBABLE LYMPHOCYTIC HYOPHYYSIS

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Lymphocytic hypophysitis (LyH) is an uncommon autoimmune disorder characterized by lymphocytic infiltration of the pituitary resulting in varying grades of hypopituitarism. Though usually reported in young women in peripartum period, it is known to occur in postmenopausal women and men. Patients may present with symptoms of intrasellar mass with varying degrees of hypopituitarism. Natural history of the diseases is not known. Among various outcomes, spontaneous resolution, shrinkage of gland with empty sella syndrome and partial or complete recovery of pituitary function is described. We present here three probable cases of LyH.

CASE - 1

F, 40 was admitted with dehydration following vomiting and diarrhoea in a private nursing home in Oct 1988. Earlier, she had two episodes of persistent vomiting requiring admission. Her last child birth was 15 years ago. She was amenorrheic for one year. CT Scan done in Nov 1988 (Fig. 1) revealed a 14 X 13 X 13 mm enhancing pituitary mass with suprasellar extension. Her hormone profile was as follows: T3-26 ng/dl, T4 - 3.1 ug/dl, TSH - 0.72 uU/ml. GH (basal) 0.42 ng/ml, cortisol (8.00 am) 2.1 ug/dl, prolactin 19.1 ng/dl and FSH 0.69 mIU/ml. She was diagnosed to have a non-functioning pituitary tumour with secondary adrenal, thyroid and gonadal deficiencies. She had no visual field defects. Patient was treated with Prednisolone 7.5 mg/day and L-thyroxin 0.1 mg/day. In the absence of headache and visual disturbances, it was decided to observe her with serial CT scans every three months and surgery was deferred. The scan repeated after three months showed decreased intensity of suprasellar extension. At this time a diagnosis of LyH was considered and the prednisolone dose was increased to 20 mg/day. After a month of this treatment she developed pulmonary tuberculosis which was successfully treated with antitubercular therapy. The steroid dose was reduced to 10 mg/day for the next one month and then to 7.5 mg/day. In 1990, one and half years after the first scan, repeat CT Scan (Fig. 2) showed no tumor and the pituitary gland was normal in size. Patient continues to be on regular hormonal replacement therapy and is asymptomatic.

CASE - 2

32 F, mother of two children, complained of headache and vomiting in third trimester of her third pregnancy. The symptoms worsened after delivery (Dec, 1990) and persisted for about two to three months in the postpartum period. She stopped breast feeding her baby. She gradually improved and her menses returned 5 months postpartum. She conceived three months later. In the second trimester of this pregnancy she again developed episodes of headache and vomiting. Post delivery (May 1992) she lactated normally. A CT Scan in May 1992 (Fig. 3) showed an enhancing 17 X 14 X 12 mm intrasellar mass extending into suprasellar region. Serum prolactin was 61 ng/dl. In Oct. 1992, when she reported to us she was asymptomatic, with normal menses. Repeat CT scan showed 12 X 10 X 10 mm tumour with minimal suprasel-

Fig. 1: CT Scan brain showing an enhancing pituitary mass with suprasellar extension.

Fig. 2: CT Scan brain showing complete resolution of the tumor with normal Pituitary gland.
Fig. 3: CT Scan brain showing an enhancing pituitary mass with suprasellar extension.

Fig. 5: CT Scan Brain showing a sellar mass.

Fig. 4: CT Scan Brain shows no tumor with normal pituitary gland.

Fig. 6: MRI Brain shows complete resolution of the tumor.

12-11-1991 (Fig. 5) showed a sellar mass measuring 11 x 8 x 8 mm. She was diagnosed to have non-functioning pituitary tumor with panhypopituitarism. She was started on replacement therapy with prednisolone and L-thyroxin. She improved dramatically, headache disappeared completely on this treatment in 4-6 weeks. In view of the improvement on replacement therapy and absence of visual compression, surgery was deferred. Patient did not report for follow up till Oct. 1993. She had continued with regular replacement therapy and was asymptomatic. MRI done on 23 Oct. 1993 with contrast (Fig. 6) did not reveal any tumor. At present she is on regular treatment with L-thyroxin and prednisolone.

**DISCUSSION**

The diagnosis of LyH, in our three cases is based on the temporal profile of the patients and on spontaneous resolution of sellar mass on subsequent follow up. Since the first documented case described in 1962,¹ total of 60 cases of LyH are reported, off which surgical or post mortem diagnosis was available in 57 patients. In 3 patients there was no tissue diagnosis available and the same was presumed on the basis of clinical profile.

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Differential diagnosis includes non functioning pituitary tumor and granulomatous diseases. Complete resolution of the mass on hormone replacement therapy alone, strongly favors LyH and rules out these two differential diagnosis in our cases. Sheehan's syndrome is also ruled out, in the absence of history of a complicated delivery and mass lesion visualised on CT scan years after delivery.

Predominant symptoms in our patients 1 and 3, who presented nearer menopause were related to pituitary hormonal insufficiency, whereas patient 2 who presented in the antenatal period with postpartum worsening, had symptoms related to pituitary hormonal insufficiency, whereas patient 2 who presented in the antenatal period with postpartum worsening, had symptoms related to pituitary mass lesion. This is similar to that described in literature, where majority of females presenting in postpartum period have symptoms related to sella mass, whereas those presenting nearer menopause have symptoms mainly attributable to pituitary hormonal deficiency. Unusual feature in case 2, however, was recurrence of symptoms in 2 consecutive pregnancies, which is not described in literature. All 3 of our patients had complete resolution of sella mass on replacement therapy alone, as shown on follow up imaging.

LyH is thought to be autoimmune in nature though evidence for autoimmunity is inconclusive. 30% of patients have associated other autoimmune disorders. There are no diagnostic serological markers available. Only 5 patients in literature, have been described to have positive antipituitary antibodies (APA) in the post partum period, presence of APA cannot be used in the diagnosis of LyH.

In view of our experience and review of literature surgical intervention is not always required in patients with pituitary tumor. In patients with sellar mass with minimal or mild visual impairment, LyH should be considered as a differential diagnosis in an appropriate clinical setting. Correction of hormonal deficiencies with regular follow up and imaging every 3 months may be rewarding and may avoid surgery and its attendant risks.

REFERENCES


