Intrasellar hydatid cyst

Case report

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The authors report a case of hypopituitarism due to a cystic lesion in the sella turcica which was revealed by neuroradiological investigations. A hydatid cyst was found and removed by the transsphenoidal route. The transsphenoidal approach avoided intracranial spillage of fertile daughter cyst and scolices.

KEY WORDS: cerebral hydatid cyst • Echinococcus • sella turcica • hypopituitarism

In countries where hydatid disease is prevalent, hydatid cysts have been found in various anatomical sites. Cerebral hydatid cysts have been reported previously, although not frequently.1–6 We believe that the occurrence of a hydatid cyst in the sella turcica has not been reported in the literature before.

Case Report

This 18-year-old male student was well until 7 months before admission, when he started to complain of headaches. During the 3 months before admission, these occurred in the left temporal region almost daily and continued all day. He did not describe any symptoms of pituitary dysfunction or visual abnormalities.

Examination. He had a eunuchoid appearance and his secondary sex characteristics were not well developed. Visual acuity was 6/9 in both eyes with correction. There was a bitemporal field defect on testing with red objects. The left optic disc was slightly pale.

Skull x-ray films revealed an enlarged sella with elevation of the anterior clinoid process and destruction of the dorsum sellae and a double-floor appearance (Fig. 1). Computerized tomography disclosed a cystic lesion in the sella with a density similar to that of cerebrospinal fluid (Fig. 2). Pneumoencephalography (PEG) was performed in order to exclude an empty sella syndrome, and demonstrated an intrasellar lesion with a round border and slight suprasellar extension.
FIG. 2. Computerized tomography scan showing a cystic lesion in the sella with the same density as cerebrospinal fluid.

FIG. 3. Pneumoencephalogram demonstrating an intrasellar lesion with slight suprasellar extension.

(Fig. 3). Right carotid arteriography was within normal limits.

In the basal state, hormonal determinations were as follows: cortisol 1.8 mg/dl (normal 8 to 25 mg/dl); follicle-stimulating hormone 1.5 mIU/ml (normal 1.47 to 6.81 mIU/ml); luteinizing hormone 3 mIU/ml (normal 4.03 to 22.25 mIU/ml); prolactin 115 mIU/liter (normal 33 mIU/liter); triiodothyronine 0.25 ng/ml (normal 0.8 to 2.0 ng/ml); and thyroxine 1.8 mg/dl (normal 4.5 to 12.0 mg/dl). Daily fluid intake varied between 2000 and 3000 cc. Urine output was between 1500 and 2500 cc, with a specific gravity of 1000 to 1004 which rose to 1010 to 1012 during water restriction. Fasting blood sugar was 50 mg% and 54 mg%.

He was started on a course of Tegretol (carbamazepine) three times daily.

Operation. Surgical intervention was performed by the transsphenoidal approach. After the floor of the sella turcica was removed, white cyst membrane bulged into the sphenoidal sinus. Water-like cystic fluid escaped when the membrane was torn during manipulation. The cyst membrane was removed easily by just pulling with a forceps. It was easily diagnosed macroscopically and histopathologically as being a hydatid cyst. The diaphragma sellae was intact, so the area of spillage was safely irrigated with hypertonic saline solution (3%) as we have advocated before.5

Postoperative Course. The postoperative course was uneventful and the patient was discharged on the 5th day after surgery. Control examinations were carried out during the 3rd and 10th postoperative months. Blood hormone analysis was found to be within normal limits.

Discussion

Rupture of the membrane of an intracranial hydatid cyst is extremely detrimental because of intracranial spillage of the cyst contents. In this case of an intrasellar hydatid cyst, surgical intervention could have been performed by the transcranial route. If we had done so, intracranial spillage of fertile daughter cyst and scolices might have occurred. Removal of this cyst by hydrostatic expulsion1-5 could not have been done easily, and the cyst could have been torn during the incision of the diaphragma sellae. The transsphenoidal subdiaphragmatic surgical route avoided such a complication.

References


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