Infection of a Rathke's cleft cyst: a rare cause of pituitary abscess

Case illustration

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KEY WORDS • abscess • pituitary • pituitary abscess • Rathke's cleft cyst

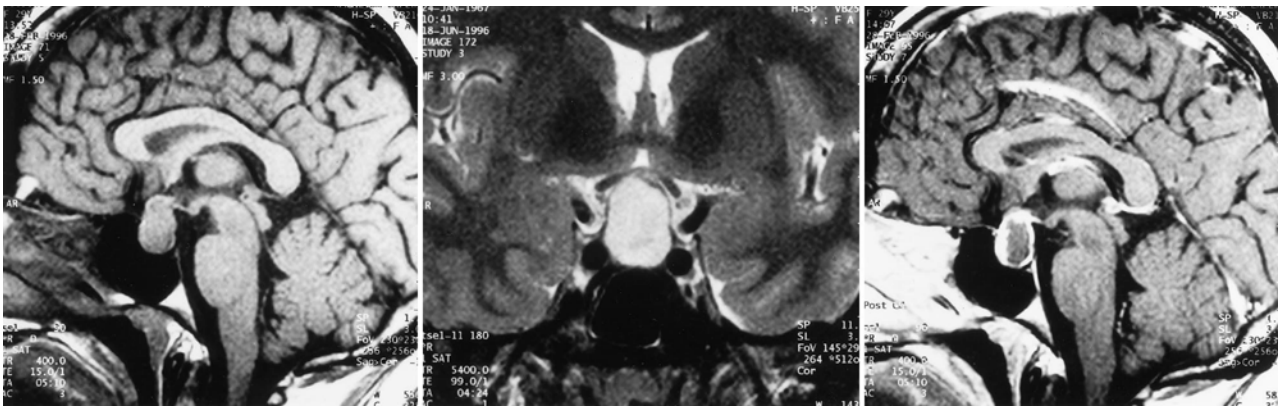

FIG. 1. Magnetic resonance images. *Left:* A T_1-weighted image revealing an intrasellar and suprasellar mass with a homogeneous signal. *Center:* A T_2-weighted image displaying a bright signal, suggesting that the contents are fluid. *Right:* Gadolinium-enhanced image showing marked peripheral enhancement.

Pituitary abscesses are rare. As of 1996, approximately 80 cases had been reported in the medical literature.[2,4] The majority of patients present with symptoms and signs suggestive of either pituitary adenoma or a central nervous system infection. We report the case of a patient with a pituitary abscess who was subsequently shown to have a preexisting Rathke's cleft cyst. This 29-year-old woman presented with galactorrhea and amenorrhea lasting 1 year. Three years earlier, she had undergone a normal pregnancy and delivery. Visual field examination revealed a right upper quadrantanopsia. The patient's complete blood count, erythrocyte sedimentation rate, electrolytes, and renal and liver function test results were normal. Her serum prolactin was 62 μg/L (normal < 25 μg/L), but the hormonal evaluation was otherwise normal. Magnetic resonance imaging revealed a homogeneous intrasellar mass with suprasellar extension, which appeared isointense on T_1-weighted images, hyperintense on T_2-weighted images, and displayed ring enhancement following gadolinium injection (Fig. 1).

At transnasal–transsphenoidal exploration of the sella, the lesion was found to contain approximately 2 ml of soft creamy fluid within a thin glistening capsule. Histological examination showed flocculent, eosinophilic material containing a moderate number of polymorphonuclear leukocytes. No bacteria or fungi were identified. Anaerobic streptococci were grown from broth culture. Fragments of the cyst wall were composed of collagenized, nonneoplastic anterior pituitary tissue densely infiltrated by a mixture of lymphocytes, plasma cells, and polymorphs. In some areas there was florid fibroblastic activity. One fragment was lined by nonkeratinizing stratified squamous epithelium. The absence of keratohyaline granules in the epithelium and of keratin debris in the cyst contents excluded a diagnosis of epidermoid cyst but was consistent with squamous metaplasia in the wall of a Rathke's cleft cyst.[3]

With the advent of magnetic resonance imaging, the diagnosis of Rathke's cleft cyst has become increasingly frequent, but the complication of infection is rare. Including the present case, as far as we can determine, there are currently nine cases of infected Rathke's cleft cysts reported in the world literature.[1,3] Abscess formation within a cyst is a treatable complication and should be considered even in the absence of fever when radiological features are suggestive of the condition. Treatment with surgery and antibiotic medications is effective in most cases.

References

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Manuscript received January 27, 1998; accepted in final form June 2, 1998.

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