

Abscess formation in Rathke's cleft cyst

Sir,

Abscess formation within a Rathke's cleft cyst (RCC) is extremely rare and only 11 cases are reported in the literature.^[1-4] In this letter, we report two cases of Rathke's cleft cyst abscess.

A 48-year-old woman was presented with a 3 year history of deteriorating vision. Prolactin was found to be mildly elevated (37.6 ng/ml) in laboratory investigations. Magnetic resonance imaging (MRI) demonstrated a cystic sellar lesion with suprasellar extension [Figure 1]. The lesion has demonstrated rim enhancement following contrast administration. The lesion was approached transsphenoidally. The abscess was drained and biopsy was taken from the cyst wall. Pus culture was negative. Pathological examination of the cyst wall revealed cuboidal epithelium, intervened between non-neoplastic anterior pituitary tissue. Patient received vancomycin, ceftriaxone and metronidazole for 6 weeks.

A 37-year-old woman was presented with a 2 year history of galactorrhea and amenorrhea and 3 month history of deteriorating vision. Prolactin was found to be moderately elevated (83.4 ng/ml). MRI revealed a cystic sellar – suprasellar lesion, which was hyperintense on T2-weighted images and isointense on T1-weighted images, demonstrating rim enhancement following contrast administration [Figure 2]. The lesion was approached transsphenoidally. Pus culture grew no organisms. Pathological examination revealed cuboidal epithelium, intervened between normal anterior pituitary tissue [Figure 3]. There was also a region of squamous metaplasia. Triple antibiotic therapy

was initiated following surgery. Follow-up MRI images performed 9 months after the surgery demonstrated reaccumulation of the abscess. The patient underwent a second session of transsphenoidal drainage followed by 6 weeks of antibiotic therapy.

Primary pituitary abscesses generally occur within normal pituitary gland and abscesses that occur within a sellar pathology, such as adenoma, craniopharyngioma, or RCC, are called secondary pituitary abscess.^[6] When the reported cases are reviewed, a possible predisposing factor can be mentioned in only two cases: A patient with sphenoid sinusitis and an immunosuppressed patient receiving methotrexate for the treatment of psoriasis.^[1-4] Only 4 of the patients in the literature were admitted with the findings of an infection. Remaining cases have presented with visual and endocrine disturbance. On MRI, the lesion was sellar and having a suprasellar component in

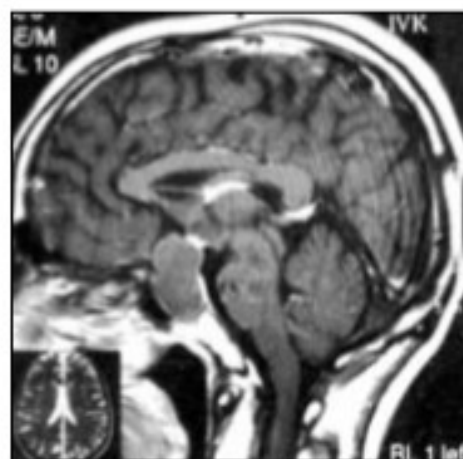


Figure 2: Pre-operative mid-sagittal MRI images of case 2 after contrast administration.

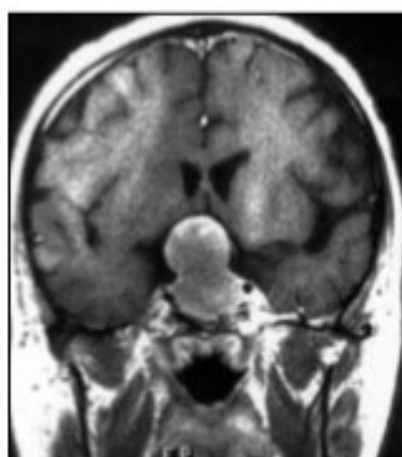


Figure 1: Pre-operative coronal MRI images of case 1, following contrast administration

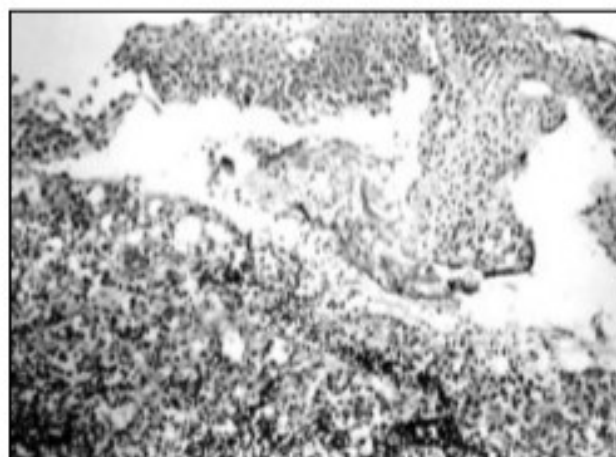


Figure 3: Histopathological examination demonstrating cuboidal epithelium intervened between normal anterior pituitary tissue

majority, generally homogeneous, hyperintense on T2-weighted images and isointense on T1 weighted images, with a typical rim enhancement following contrast administration.^[1-4]

These lesions should be approached transsphenoidally, in order to prevent the spread of the infection into the intracranial compartment.^[6] The material within the cyst is purulent. Histological examination reveals polymorphonuclear leukocytes within eosinophilic material. Gram stain is generally negative and Gram (-) rods were identified in only one case in the literature. Culture of the abscess content was positive only in four of the reported cases and the isolated organisms were: *Acinetobacter Iwoffii*, *Staphylococcus epidermidis*, *Staphylococcus aureus* and *Streptococcus pyogenes*.^[1-4]

RCC are generally composed of a fibrous wall with a single layer of cuboidal or columnar and frequently ciliated epithelium.^[5] But in cases of abscess formation, it has been proposed that, lining epithelium undergoes metaplasia and simple or stratified squamous epithelium is encountered. The absence of keratohyaline granules in the epithelium and of keratin debris in the content of the abscess excludes a diagnosis of epidermoid cyst.^[1-4]

Following drainage of the abscess, parenteral antibiotic treatment should be initiated. Empiric therapy consists of vancomycin, ceftriaxone and metronidazole for at least 4 weeks.^[6] The abscess had recurred in six of the reported cases.

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