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Case Report:
Symptomatic Rathke's Cleft Cyst Presenting With Decreased Visual Acuity

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ABSTRACT

Background and Importance: Symptomatic Rathke's cleft cyst is a rare lesion that often presents without any symptoms.

Case Presentation: We report a 40-year-old female with symptomatic Rathke's cleft cyst located in the sellar and suprasellar region. She presented with visual disturbance, headache, weight gain, hypothyroidism and amenorrhea. The patient underwent surgery and the pathological examination confirmed Rathke's cleft cyst.

Conclusion: Although the symptomatic Rathke's cleft cyst is rare, the differential diagnosis must be done with intrasellar and suprasellar lesions.

1. Background and Importance

The Rathke's cleft cyst is an uncommon lesion that originates from remnant of Rathke's pouch. Most of these cysts are asymptomatic and are equally seen in men and women [1-3]. In this report, we present a 40-year-old woman with a Rathke's cleft cysts in the intrasellar and suprasellar location. Although the symptomatic Rathke's cleft cyst is rare, the differential diagnosis must be done with other intrasellar and suprasellar lesions.

2. Case Presentation

A 40-year-old female patient presented with 2-week history of visual disturbance, bilateral temporal throbbing headache that was refractory to treatment. A few months later, she was gaining weight and then developed amenorrhea which laboratory tests showed hypothyroidism. Her past medical and family history, social and review of systems were noncontributory. In physical examination, she was oriented and all cranial nerves and muscle strength were intact. The perimetry showed bitemporal hemianopia. The Brain MRI T1 and

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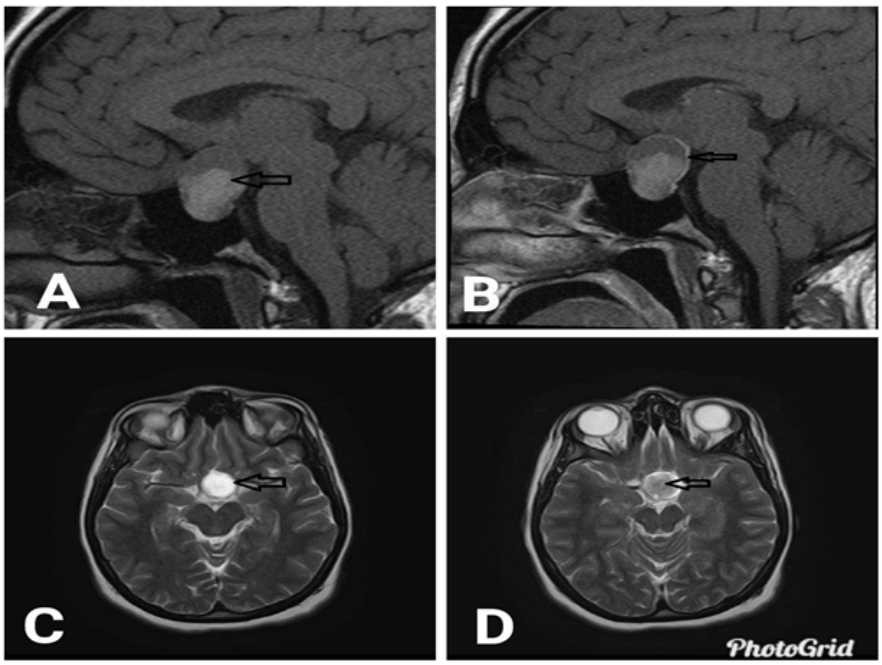

Figure 1. The Brain MRI T1 (A and B) and T2 (C and D) images

Images show the sellar and suprasellar cystic lesion that contrast enhancement was present around the lesion (D).

T2 images showed the sellar and suprasellar cystic lesions with ring enhancement (Figure 1).

The patient underwent operation with endoscopic transnasal transsphenoidal surgery and the entire tumor was resected. The pathological examination confirmed Rathke's cleft cyst with pseudo stratified ciliated epithelium and compressed normal adenohypophysis around the cyst (Figure 2). We obtained the written informed consent from the patient to report the case.

3. Discussion

Rathke's cleft cysts are non-neoplastic lesions that commonly located in the intrasellar or both intrasellar and suprasellar regions. These cysts are often asymptomatic but if enlarged, they can cause symptoms like headaches, visual disturbances, hypopituitarism, hyperprolactinemia, and rarely pituitary apoplexy, abscess formation and aseptic meningitis [4-8].

In a study by Isono et al. on 15 patients with Rathke's cleft cysts, hormonal impairment, visual disturbance

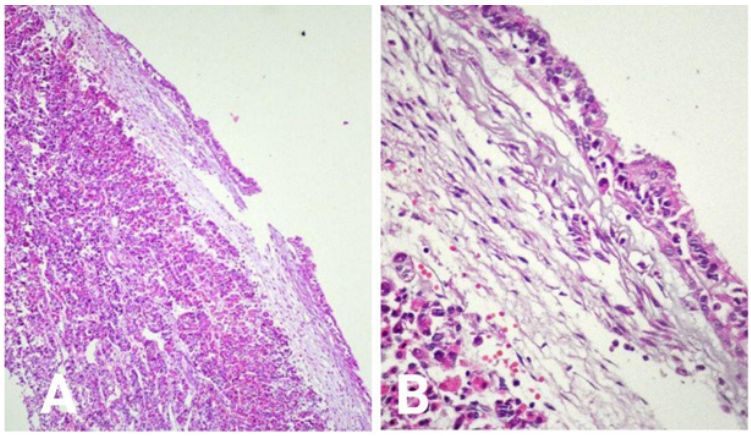

Figure 2. The pathological examination

It confirmed Rathke's cleft cyst with pseudostratified ciliated epithelium and compressed normal adenohypophysis around cyst

and headache were the most common symptoms, respectively. The most common hormonal impairment was hyperprolactinemia and increased growth hormone. Also diabetes insipidus has been reported in these patients [1]. On imaging, these cysts are usually non-calcified with low attenuation and non-enhancement but in some cases, cyst wall enhancement may occur. A small nodule is seen in a large number of patients within the cyst [4, 9, 10]. Nishikawa et al. presented a case of Rathke's cleft cyst that raptured and caused inflammatory hypophysitis. This case presented with malaise, visual disturbance and hypopituitarism [5].

Agarwal et al. reported a case of Rathke's cleft cyst in the parasellar and paraventricular area that extended to frontotemporoparietal region. This case presented with visual disturbance and optic atrophy in her right eye [11]. The main treatment for symptomatic patients is transsphenoidal surgery, drainage of cysts and partial resection of the wall to confirm histologic diagnosis. Complete removing the tumor can damage the surrounding tissues. In cases where transsphenoidal surgery is not possible, the craniotomy was done [12-15].

4. Conclusion

Although the symptomatic Rathke's cleft cyst is rare and this cyst usually is found accidentally in brain imaging and autopsy, its timely diagnosis and treatment can prevent its complications.

Ethical Considerations

Compliance with ethical guidelines

There was no ethical considerations to be considered in this research.

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Conflict of interest

The authors declared no conflict of interest.

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