

Epidermoid Cysts of the Quadrigeminal Cistern: Neuropsychiatric Symptoms and Management

In the article “Mood disorder as an early presentation of epidermoid of quadrigeminal cistern,”^[1] the authors report a case of a 32-year-old male with a giant epidermoid cyst of the quadrigeminal cistern who presented with an episode persistent and prolonged of bipolar affective disorder. The patient underwent surgical treatment of the epidermoid cyst and was referred for psychiatric treatment subsequently. The authors establish a possible cause and effect relationship between mood disorder developed by the patient and the epidermoid cyst. In the literature review, no association was found between mood disorder and epidermoid cyst. Is it a simple association or, indeed, the mass effect of the epidermoid cyst is involved in the patient’s psychiatric changes?

The epidermoid cyst is a slow-growing benign tumor that arises in the cisterns of the base commonly. They represent about 1% of intracranial tumors. The most common intracranial location for this tumor is the cerebellopontine angle cistern and the suprasellar region. Epidermoids of the quadrigeminal cistern account for 15% of all intracranial epidermoid tumors.^[2]

The symptoms related to epidermoids are usually due to mass effect on neural structures. In this context, a constellation of signs and symptoms has been attributed to lesions occupying a pineal region, such as a headache, motor deficit, cranial nerve palsy, visual loss, convulsion, ataxia, urinary incontinence, and vomiting.^[3] However, neuropsychiatric symptoms are poorly reported. In 2012, Nair *et al.* reported a series of 15 patients with a giant epidermoid cyst of the quadrigeminal cistern who underwent microsurgical treatment. In the series, the average age was 27.2 years at presentation, and the average of duration of symptoms was 9.2 months. The most prevalent symptoms were a headache (66.6%) and visual loss (40%). Papilledema was the most frequent sign in a neurological examination (73.3%). However, in one patient, mutism was described.^[4] This same symptom was reported by Kawal and Kumar in a 16-year-old girl who also treated an epidermoid cyst in the quadrigeminal cistern. After treatment, this patient evolved with an improvement of this symptom. Thus, it was hypothesized that a mass effect of the tumor on the midbrain, the fornix, the thalamus, or

the corpus callosum had an influence on the clinical manifestation.^[5] Desai *et al.* reported two cases, a series of 24 patients with epidermoid cyst of the pineal region, who presented with apathy, memory alteration, and behavior change.^[3] Kontoangelos *et al.* reported a case of a 32-year-old male with pineal epidermoid cyst and hydrocephalus who presented with depressive symptoms. Neuropsychiatric symptoms, such as apathy, anxiety, restlessness, and depression, can occur in patients with hydrocephalus.^[6]

With respect to management, surgery is the treatment of choice for epidermoid cyst, indicated for symptomatic individuals. The objective is complete resection since these lesions have a high tendency to relapse when not completely resected. However, conservative resections are advisable when the capsule is adherent to neurovascular structures. The surgical recommendations are intracapsular drainage followed by removal of the capsule. To achieve localized lesions in the pineal region, the main approaches performed are infratentorial supracerebellar and interhemispheric posterior parieto-occipital approaches.^[2-4]

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