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Surgical Treatment of Intradiploic Epidermoid Cyst Treated as Depression

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SUMMARY

Introduction Extradural intradiploic epidermoid cysts are rare, representing less than 0.25% of all primary intracranial tumors. They can be neurologically silent and can only present psychiatric symptoms like depression, cognitive or personality changes.

Case Outline A 68-year-old male with two year long history of depressive mood, lack of motivation, helplessness, hopelessness and poor response to antidepressive drug therapy was described. CT scan showed a well-defined mass in the parietal scalp with destruction of the scull. He underwent intracranial tumor resection. Surgical resection and cranioplasty were performed. Pathology confirmed intradiploic epidermoid cyst.

Conclusion Total removal of these cysts and repeated washing of the cavity with 0.9 % saline may prevent recurrence and aseptic meningitis and may improve mental state of the patient. We also emphasize the need for neuroimaging studies in a patient with atypical changes in mental status, even without neurological signs or symptoms.

Keywords: epidermoid cyst; brain tumor; depression

INTRODUCTION

The cysts originate during weeks 3–5 of gestation from the ectodermal cellular remnants that arise from the incomplete cleavage of the neural ectoderm from the cutaneous ectoderm. Epidermoid cysts have been described as non-neoplastic cysts and represent approximately 1% of all primary intracranial tumors. They may be intradural (usually extra-axial) or extradural (usually arising in the diploic space of calvaria). Intradural cysts most frequently involve the posterior cranial fossa, especially the cerebellopontine angle (CPA).

Extradural intradiploic epidermoid cysts, like epidermoid cysts in other cranial locations, are rare, accounting for less than 0.25% of all primary intracranial tumors [1, 2]. They can be located in any part of the skull, and occur from the first to the seventh decade [3]. These lesions are usually discovered incidentally and may remain asymptomatic for many years. They can be often manifested only through the changes in mental state and remain undiscovered for many years if they grow intracranially and produce brain compression or undergo malignant change [4].

Intracranial tumors may give rise to symptoms simulating depression, anxiety states, hypomania and schizophrenia [5]. Most often, it is slow-growing benign tumors that are responsible.

Epidermoid cysts usually grow insidiously at a linear rate, and can result in slow onset of neurological and psychiatric symptoms. Patients can present with depression, anxiety, cognitive or personality changes, psychosis, apathy/abulia [5, 6]. Psychiatric symptoms, such as depression or mania, may be initial presenting symptoms in some cases of brain tumors [7-11].

In this report, we describe the clinical, radiologic and pathologic aspects of a 68-year-old male with an epidermoid cyst of the parietal bone.

CASE REPORT

A 68-year-old male patient was admitted to Neurosurgery Department, Clinical Hospital Center Zemun, with minor weakness of the right side of his body and subcutaneous mass on the left parietal scalp.

A year and a half ago, before admission, he consulted a psychiatrist due to depressive thoughts and problems with memory and motivation. The patient had frequent headaches, depressed mood most of the day, diminished interest in almost all activities, insomnia, increased appetite and diminished ability to think or concentrate and remember. There was no organic problem in his medical history, no head traumas, and there was no family history of neuropsychiatric diseases. He also mentioned the dysesthesia on the left side of the skull. The patient was treated after being diagnosed as psycho-organic syndrome (mild

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