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Recurrent Atretic Parietal Cephalocele in Adult and Radiolodical Findings

Yetişkinde Rekürren Parietal Atretik Sefalosel ve Radyolojik Bulguları

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Abstract

Atretic parietal cephaloceles are an extremely rare and occult form of congenital herniations that involve the meninges, remnants of glial cells or central nervous system structures. They are detected as subscalp lesions that are covered by skin. In the literature, atretic parietal cephaloceles have been reported in children in 59 cases and in two cases in adults. We present here a case of a recurrent atretic parietal cephalocele that we recently observed in an adult. This case indicates that an atretic parietal cephalocele should always be considered in the differential diagnosis of subscalp lesions. Radiologic diagnosis is a lifesaving measure that can be undertaken before an operation. Additionally, regular follow-up magnetic resonance imaging is recommended for each case with remnant lesions due to the slow growth of these masses.

Key Words: Recurrent atretic cephalocele, Adult, Magnetic Resonance Imaging.

Özet

Atretik patietal sefalosel meninksleri ve santral sinir sisteminin glial hücrelerini içeren konjenital herniasyonun oldukça nadir saptanan ve gizli formudur. Deri kaplı subskalp lezyon şeklinde izlenir. Literatürde çocuklarda elliyedi tane, yetişkinlerde iki tane olgu rapor edilmiştir. Bu yazımızda yetişkinde saptadığımız rekürren atretik parietal sefalosel olgusunu sunmak istiyoruz. Bu olgu gösterdi ki atretik parietal sefalosel, subskalp lezyonlarının ayırıcı tanısında düşünülmelidir. Operasyon öncesi konulacak olan radyolojik tanı hayat kurtarıcıdır. Kalıntı lezyonların yavaş büyümesi nedeniyle düzenli manyetik rezonans takipleri önerilir.

Anahtar Kelimeler: Rekürren atretik sefalosel, Yetişkin, Manyetik rezonans görüntüleme.

Introduction

Atretic parietal cephaloceles are extremely rare and occult forms of congenital herniations that involve the meninges, remnants of glial cells or central nervous system (CNS) structures, such as intracranial venous sinuses [1]. They are detected as subscalp lesions that are covered by skin [2]. Associations of dissimilar and complex CNS syntrophus changes are important aspects of these malformations [3]. The diagnosis is based on radiological findings. In the literature, atretic parietal cephaloceles have been reported in children in fifty-nine cases and in two cases in adults, with only one of them with associated brain malformations up to now.

Case Report

We present here a case of an atretic parietal cephalocele that we recently observed in an adult. A 36-year-old man was referred to our department who presented with a subscalp lesion that was evaluated as a recurrence. He had been operated on in the defined area when he was a soldier. Thus far, he had no clinical symptoms. First, computed tomography was performed on the patient. A soft tissue lesion has detected at the midline with posterior parietal localization, with an underlying bone defect and without any brain abnormalities. The lesion size was 1.5 x 1 cm and had penetrated to the diploe bone (Figure 1). The tubular cerebrospinal fluid (CSF) tract had reached the lesion from the superior cerebellar cistern (Figure 2). Magnetic resonance venography was applied, and an upward course of the straight sinus was demonstrated close to the CSF tract (Figure 3). The lesion was radiologically diagnosed as an atretic parietal cephalocele.

Discussion

Atretic parietal cephaloceles are noncystic, well-defined scalp swellings that arise at the midline of the vertex [4]. Sinus pericranii and dermoid cysts are the most common lesions that are confused with atretic parietal cephaloceles as subscalp masses [5]. A rare form of these lesions is asso-

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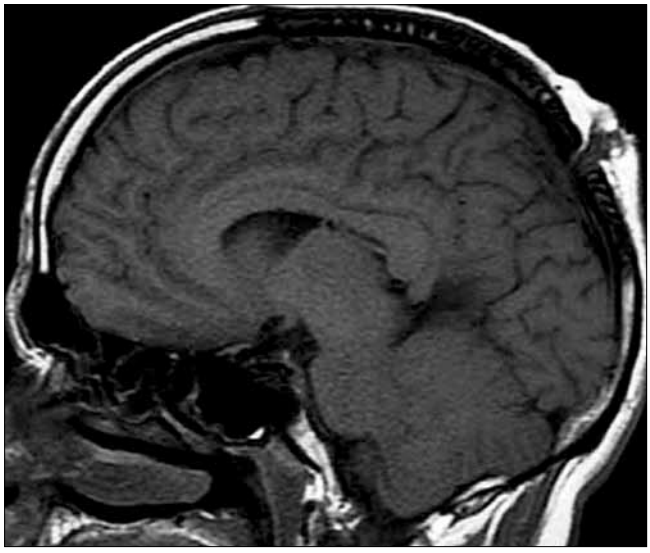

Figure 1. *Sagittal T1-weighted magnetic resonance image: A parietal-located calvarial defect and a subscalp lesion.*

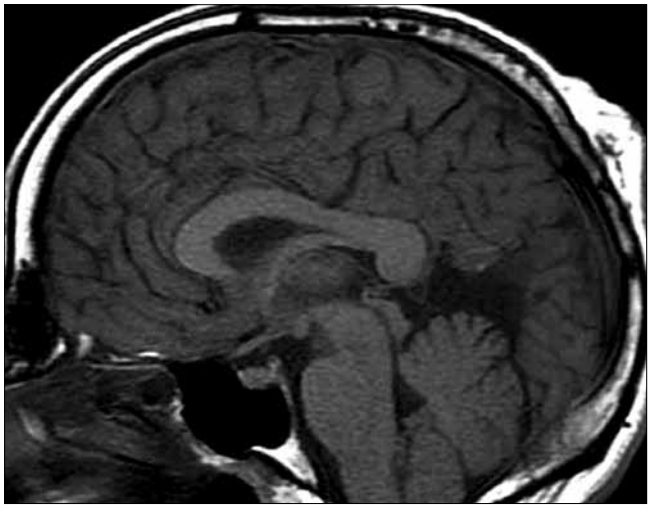

Figure 2. *Sagittal T1-weighted magnetic resonance image: An abnormal cerebro-spinal fluid tract between the superior cerebellar cistern and a calvarial defect.*

ciated with brain-ocular malformation, characterized by a poor prognosis and mental retardation [6]. Generally, venous anomalies accompany this disease, and most of these cases have benign clinical findings [7]. At the same time, the imaging characteristics of atretic parietal cephaloceles can be diagnostic. In particular, magnetic resonance venography can easily detail anatomic communication of venous malformations [8]. In this way, the surgical procedure or method of approach can be changed, and the prognosis can be improved. According to our experience, a case of a recurrent atretic parietal cephalocele has not been reported in an adult

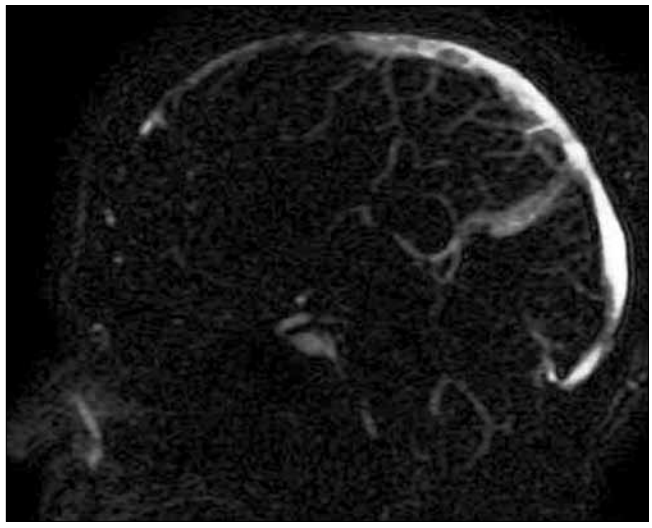

Figure 3. *Sagittal cranial magnetic resonance venography image: The upward course of the straight sinus was demonstrated close to the cerebro-spinal fluid tract.*

previously. This case indicates that an atretic parietal cephalocele should always be considered in the differential diagnosis of subscalp lesions. A radiologic diagnosis can be lifesaving process undertaken before an operation. Additionally, regular follow-up magnetic resonance imaging is recommended for each case with remnant lesions due to the slow growth of these masses.

Conflict of interest statement: The authors declare that they have no conflict of interest to the publication of this article.

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