
Références


Correspondances

C. Karam*
S. Koussa
Service de neurologie, hôpital Hôtel-Dieu de France, université Saint-Joseph, rue Adib-Isaac, Beyrouth, Liban
Adresse e-mail : chafickaram@hotmail.com (C. Karam).
Disponible sur internet le 07 novembre 2007
*Auteur correspondant.

doi:10.1016/j.neurad.2007.08.001

Brainstem tuberculoma in a postpartum patient

Case Report

A 34-year-old multiparous woman presented at three weeks postpartum with recent intractable headache and dizziness that was increasing in severity. She had given birth to a healthy female child. Ten days previously, she had experienced double vision, and increasing difficulty with speech and walking. A puerperal psychosis, which did not improve with antipsychotic drugs, was diagnosed by a psychiatrist at that time. There was no history of exposure to tuberculosis.

On clinical examination, she was conscious and afebrile with no signs of meningitis. Generalized hypotonia was accompanied by tetraparesis. Her full blood count and electrolytes were normal, but her erythrocyte sedimentation and C-reactive protein rates were elevated. A tuberculin skin test was positive and HIV serology was negative. MRI demonstrated a multiloculated, contrast-enhancing, pontomesencephalic lesion in the posterior midline (Fig. 1). On T2-weighted imaging, the lesion appeared hypointense with a hyperintense rim surrounded by high signal intensity due to vasogenic oedema (Fig. 2). On diffusion-weighted imaging (DWI), the lesion showed low signal intensities (Fig. 3).

The findings were suggestive of caseating tuberculoma. A thoraco-abdominal CT scan was normal. Cerebrospinal fluid (CSF) examination showed increased protein levels with normal cell counts. A stereotactic brain biopsy taken via a precoronal approach revealed caseating granuloma, but no acid-fast bacilli. Cultures of the biopsy specimen, urine, blood and CSF for acid-fast bacilli were also negative. A 2-month drug regimen comprising isoniazid, rifampicin, pyrazinamide and streptomycin was initiated with systemic corticosteroid therapy, followed by 10 months of isoniazid and rifampicin. Progressive neurological recovery was accompanied by satisfactory radiological improvement within the first 12 weeks.

Figure 1 MRI sagittal (a) and axial (b) T1-weighted images after gadolinium injection showing a multiloculated, contrast-enhancing lesion lying in a posterior-midline pontomesencephalic location.

Figure 1 IRM cérébrale en coupes sagittale (a) et axiale (b) en séquences pondérées T1 après injection de gadolinium montrant une lésion multiloculaire pontomesencéphalique postérieure se rehaussant en périphérie.
Alterations to immune status during pregnancy can lead to impaired cell-mediated immunity with increased susceptibility to certain infections such as tuberculosis. However, Intracranial tuberculosis presenting in the postnatal period is rare, and often accompanied by non-specific symptoms that make diagnosis difficult [1,2]. Brainstem tuberculosis is very unusual, accounting for less than 5% of all intracranial tuberculosis [3]. It may be diagnostically challenging on conventional MRI because of its similar appearance to other rim-enhancing lesions (such as bacterial abscesses and central tumor necrosis) [3,4]. However, a lesion with a T1- and T2-weighted hypointense rim with strong T1-weighted contrast enhancement together with T2-weighted hypointense content is characteristic of caseating tuberculoma compared with other rim-enhancing lesions [3,5,6]. The use of more modern imaging tools such as MRI spectroscopy and DWI may be helpful in making a non-invasive diagnosis of tuberculoma [4-6]. As the prevalence of tuberculosis remains high, it is mandatory to bear it in mind in pregnant and postpartum patients. All patients with puerperal psychosis should undergo cerebral imaging investigations.

References


A. Akhaddar
Departments of Neurosurgery, Mohammed V Military Teaching Hospital, Rabat, Morocco
E-mail address: akhaddar@hotmail.fr (A. Akhaddar).

M. Mahi
Department of Radiology, Mohammed V Military Teaching Hospital, Rabat, Morocco

A. Harket
Department of Anatomopathology, Mohammed V Military Teaching Hospital, Rabat, Morocco

B. Elmostarchid
A. Belhachemi
A. Elasri
M. Gazaz
M. Boucetta
Departments of Neurosurgery, Mohammed V Military Teaching Hospital, Rabat, Morocco

Available online 07 November 2007