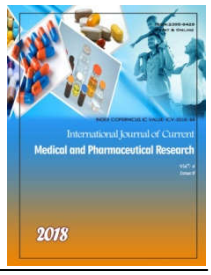
CASE REPORT

INTERNATIONAL JOURNAL OF CURRENT MEDICAL AND PHARMACEUTICAL RESEARCH

ISSN: 2395-6429, Impact Factor: 4.656
Available Online at www.journalcmpr.com
Volume 4; Issue 8(A); August 2018; Page No. 3527-3528
DOI: http://dx.doi.org/10.24327/23956429.ijcmpr20180503



A RARE ETIOLOGY OF TETRAPARESIS: CASE REPORT

Omar Boulahroud[1]*., Okacha Naama[1]., Toufiq Africha[2] and Jalal El Benaye[3]

[1]Departement of Neurosurgery, Military Hospital My Ismail, Meknes, Morocco
[2]Departement of Radiology, Military Hospital My Ismail, Meknes, Morocco
[3]Department of Dermatology, Military Hospital My Ismail, Meknes, Morocco

ARTICLE INFO

Article History:
Received 22nd May, 2018
Received in revised form 5th June, 2018
Accepted 16th July, 2018
Published online 28th August, 2018

Key words:
Tuberculoma, Intradural extramedullary, Spinal cord

ABSTRACT

Tuberculosis is the most common chronic central nervous system infection in developing countries like Morocco. Non-osseous spinal cord involvement is a rare manifestation of tuberculosis. The use of MRI, as an imaging modality of choice has revolutionised the imaging of tuberculomas with reasonable certainty and thereby avoiding unnecessary surgical intervention. However, isolated localizations of this disease can cause problems of differential diagnosis, in particular of tumoral etiologies. We report an unusual presentation of intradural extramedullaryl tuberculomas as single location of tuberculoma in an immunodeficient female patient

INTRODUCTION

Tuberculosis is still an important pathological entity in developed and developing countries. Central nervous system involvement in patients with tuberculosis is estimated to be approximately 10% with tuberculous meningitis being the most common manifestation. Intradural extramedullary (IDEM) tuberculoma of the spinal cord is an extremelly rare complication of tuberculosis.

We describe an unusual case of intradural, extramedullary tuberculoma reveled by tetraparesis in an immunodeficient female patient.

CASE REPORT

A 66-year-old woman, with a known history of systemic lupus erythematosus (SLE) for 20 years, presented with subacute onset sensorimotor tetraparesis and urinary incontinence since 2 months. She had also received dexamethasone therapy 0.1 mg/kg/24 h for 24 months. Neurologic examination revealed severe muscular weakness and hyporeflexia of the bilateral lower extremities. Extensor plantar responses were elicited bilaterally. MRI of the spine revealed an extramedullary lesion homogeneously enhanced extending from C4 to D2 level mimicking a meningioma in the intradural extramedullary space (figure 1) of the posterior spinal canal with severe cord compression. Laminectomy at the D1-3 vertebrae levels was performed; an unexpected soft granuloma was observed in the intradural space. Biopsy of the granuloma reveled after anatomo-pathology study a giant cell epithelioid granulomatous (figure 1) reaction which strongly oriented us toward tuberculosis.

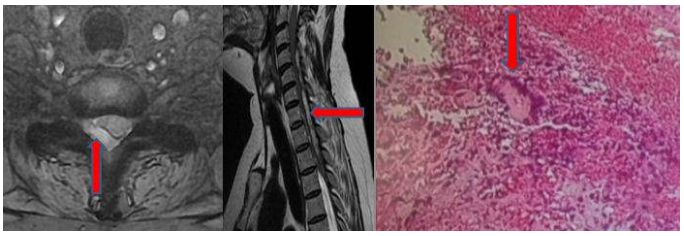


Figure 1 Left image; MRI T1-weighted cervical spine axial on C6 showing enhanced intradural extramedullary lesion (arrow) with cord compression. Middle image; cervical T2-weighted MRI saggital image showing the spinal cord compressed by an intradural extramedullary low intensity lesion extended from C4 to D2 (arrow). Right image; Photomicrograph (H&E × 400) shows chronic granulomatous inflammation with giant cells and epitheloid granulomatous reaction (arrow).

X-rays of chest and air sinuses, as well as a brain computerized tomography (CT) scan did not show any specific finding. The patient was then put on a five drug daily antitubercular regimen including isoniazid (5 mg/kg), rifampin (10 mg/kg), ethambutol (15-20 mg/kg), pyrazinamide (15-30 mg/kg) and streptomycin (15 mg/kg) with adjunctive corticosteroids. Initially, intravenous dexamethasone was given at a dose of 0.4 mg/kg/day which was subsequently reduced by 0.1 mg/kg on weekly basis. After the fourth week oral dexamethasone was prescrived and progressively reducted by 1mg per week.

Corresponding author:* **Omar Boulahroud
Departement of Neurosurgery, Military Hospital My Ismail, Meknes, Morocco

Five-drug therapy was continued for 2 months initially and then switched over to continuation phase comprising isoniazid and rifampin for a total of 18 months. The patient had no improvement in his residual weakness but remained ambulatory.

DISCUSSION

IDEM tuberculomas constitutes only 1% of spinal tuberculomas even in developing countries where a variety of unusual locations of TB are encountered [1] Compton and Dorsch reported 11 cases of intradural extramedullary tuberculoma in 1984. Since then, there have been 19 more cases reported in the English literature [2,3,4,5]. The diagnostic method is generally histopathology. Acid- Fast Bacilli (AFB) smear and cultures from the granulomas are exceptionally positive [6]. Non-osseous spinal tuberculoma usually arises from a primary pulmonary focus and the spread of the disease to the spine is hematogenous in nature, but also could occur by direct extension from hilar lymph nodes also the IDEM tuberculoma are often associated to a tuberculous meningitis, that was reported in most observations [7], in our case this location was isolated, and in our knowledge this is the only case of isolated IDEM location, that is probably the consequence of the immunodeficient statue and the long term corticotherapy which may induced a masked meningitis that had the time to be organized in granuloma in intradural extramedullary space. Most intradural extramedullary tuberculoma cases were detected after antituberculous therapy had been initiated, which is known as paradoxical response to antituberculoma drugs [8]. The mechanism for the paradoxical response is unclear. However, it is believed to be the result of an interaction between the host's immune response and the direct effects of mycobacterial products [6-8]. The prognosis for neurological improvement is good with a prompt surgical excison and appropriate antituberculous medication [3-9]. Although intramedullary tuberculoma can be treated with medication alone, surgery for intradural extramedullary tuberculoma is necessary when compression of spinal cord occurs.

CONCLUSION

Tuberculosis affects the spinal cord infrequently and can cause non-osseous compressive or infiltrating myelopathies due to tuberculomas. It should be known as rare but possible complication of tuberculous specially in immunodeficient patients.

References

1. Caplan LR, Norohna AB, Amico LL. Syringomyelia and arachnoiditis. *J Neurol Neurosurg Psychiatry* 1990; 53:106-13.
2. Mirzai H. Tuberculoma of the cervical spinal canal mimicking en plaque meningioma. *J Spinal Disord Tech.* 2005; 18(2):197-9.
3. Luo L, Pino J. An intradural extramedullary tuberculoma of the spinal cord in a non-HIV-infected patient: case report and review of the literature. *Lung.* 2006; 184(3):187-93.
4. Roca B. Intradural extramedullary tuberculoma of the spinal cord: a review of reported cases. *J Infect*. 2005; 50(5):425-31.
5. Muthukumar N, Sureshkumar V. Concurrent syringomyelia and intradural extramedullary tuberculoma as late complications of tuberculous meningitis. *J Clin Neurosci*. 2007; 14(12):1225-30.
6. Shim DM, Oh SK, Kim TK, Chae SU. Intradural extramedullary tuberculoma mimicking en plaque meningioma. *Clin Orthop Surg*. 2010; 2:260-3. (doi:10.4055/cios.2010.2.4.260)
7. Intradural, Eextramedullary Tuberculoma of the Spinal Cord as a Complication of Tuberculous MeningitisP. Skendros, F. Kamaria,V. Kontopoulos, I.Tsitouridis, L. Sidiropoulos Infection 2003; 31: 115-117. (DOI 10.1007/s15010-002-3019-8)
8. Takahashi H, Ito S, Kojima S, Tanno T, Hattori T. Intradural extramedullary tuberculoma of the thoracic spine: paradoxical response to antituberculous therapy. *Intern Med*. 2008; 47(8):797-8.
9. Kumar R, Kasliwal MK, Srivastava R, Sharma BS. Tuberculoma presenting as an intradural extramedullary lesion. *Pediatr Neurosurg*. 2007; 43(6):541-3.

How to cite this article:

Omar Boulahroud *et al* (2018) 'A Rare Etiology of Tetraparesis: Case Report', *International Journal of Current Medical And Pharmaceutical Research,* 04(8), pp. 3527-3528.

****