

Spinal cord tuberculosis: a paradoxical response to antituberculous therapy

Ritesh Sahu, Tejendra S Chaudhari, Vivek Junewar, Rakesh Shukla

Department of Neurology, King George's Medical University, Lucknow, Uttar Pradesh, India

Correspondence to
Professor Rakesh Shukla,
rakeshshukla_rakesh@rediffmail.com

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DESCRIPTION

A 22-year-old man, with a known case of definitive tuberculous meningitis (TBM) on antitubercular therapy (ATT) for 5 months, presented with subacute onset sensorimotor paraparesis with urinary urgency since 1 month. He had also received dexamethasone therapy 0.4 mg/kg/24 h for 1 month followed by reducing course over next 2 weeks as per British Infection Society guidelines. MRI of the spine revealed a ring enhancing intramedullary lesion at D4 level suggestive of tuberculoma alongwith extramedullary meningeal based heterogeneously enhancing lesion

extending from D6 to D10 level suggestive of arachnoiditis (figures 1 and 2).

Paradoxical reaction in TBM refers to type IV hypersensitivity reaction manifesting as new tuberculoma and/or arachnoiditis during the course of antituberculous chemotherapy.¹ The host immune response responsible for hypersensitivity reaction to protein derivatives of mycobacteria is resolved after starting chemotherapy.² As per previous literature, spinal tuberculosis is an unusual complication of TBM.³ Spinal cord tuberculosis as a paradoxical immune response should be known as an unusual but a possible complication of TBM. Recommendation



Figure 1 MRI dorsal spine sagittal images (T1-weighted image (A), T1+C (B), T2-weighted image (C)) showing ring enhancing intramedullary lesion s/o tuberculoma (arrow) and extramedullary meningeal based heterogeneously enhancing lesion with cord compression s/o arachnoiditis.

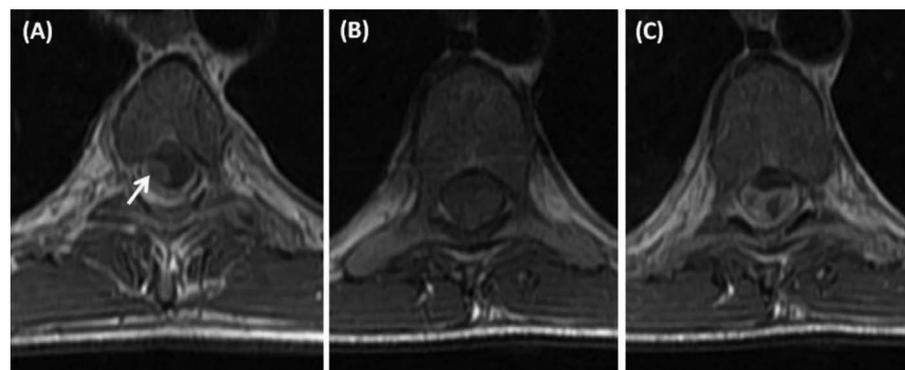


Figure 2 MRI dorsal spine axial images showing ring enhancing intramedullary lesion s/o tuberculoma (T1+C (A), arrow) and arachnoiditis with cord compression (T1-weighted image (B), T1+C (C)).



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of corticosteroids and significant response in our patient favours the diagnosis of paradoxical reaction.

Learning points

- ▶ Development of new lesions or worsening of existing lesions is an indication of paradoxical response in CNS tuberculosis.
- ▶ Spinal cord tuberculosis as a paradoxical response should be considered as a rare but known possible complication of tuberculous meningitis.
- ▶ Corticosteroid is the recommended therapy along with antituberculous treatment.

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Competing interests None.

Patient consent Obtained.

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REFERENCES

- 1 Skendros P, Kamaria F, Kontopoulos V, *et al*. Intradural extramedullary tuberculoma of spinal cord as a complication of tuberculous meningitis. *Infection* 2003;31:105–17.
- 2 Kumar R, Prakash M, Jha S. Paradoxical response to chemotherapy in neurotuberculosis. *Pediatr Neurosurg* 2006;42:214–22.
- 3 Roca B. Intradural extramedullary tuberculoma of the spinal cord: a review of reported cases. *J Infect* 2005;50:425–31.

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