

## MRI Imaging of Spinal Intramedullary Tuberculoma

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### Case Report

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### Abstract

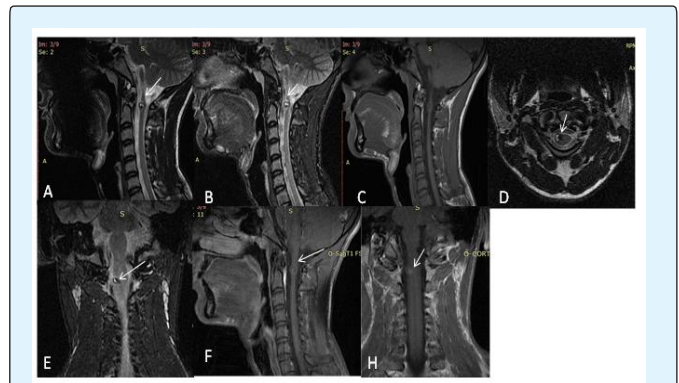
Spinal cord tuberculoma is a rare entity with cerebral to cord ratio 42:1, and is induced by haematogenous dissemination or through CSF infection. It is a treatable entity so holds importance in diagnosis. We present a case of a 21 year old male presented with weakness, numbness and paresthesias in bilateral upper limbs with characteristic MR imaging findings of tuberculoma in the cord in healing calcified granulomatous stage.

**Keywords:** Intramedullary; Tuberculoma

**Abbreviation:** CSF: Cerebrospinal Fluid; MRI: Magnetic Resonance Imaging; CNS: Central Nervous System.

### Case Report

A 21 year old male presented with weakness, numbness and paresthesias in bilateral upper limbs 1 year back, Diagnosis was established as spinal cord tuberculoma in inflammatory stage then by imaging and CSF biochemical analysis at PGI Chandigarh. Now patient came to our institute for follow up MRI scan. MRI scan which shows well defined lesion in cervicomedullary junction with heterogeneous signal intensity with peripheral hypointense rim of calcification seen and there is subtle post gadolinium enhancement in Sagittal T2W, STIR, T1W and POST CONTRAST Images (Figures 1A-C & 1F) axial T2W (Figure 1D) Coronal STIR and POST CONTRAST (Figures 1E, 1F) (Lesion is indicated by arrows). Healing Calcified granular stage of tuberculoma was given as diagnosis.



Figures 1(A-H): Patient is a diagnosed case of spinal cord tuberculoma came for follow up MRI scan which shows well defined lesion in cervicomedullary junction with heterogeneous signal intensity with peripheral hypointense rim of calcification seen and there is subtle post gadolinium enhancement in Sagittal T2W, STIR, T1W and POST CONTRAST Images (A-C, F) axial T2W (D) Coronal STIR and POST CONTRAST (E, F) (Lesion is indicated by arrows). Healing Calcified granular stage of tuberculoma was given as diagnosis.

## Discussion

Spinal cord tuberculoma is a rare entity with cerebral to cord ratio 42:1, and is induced by haematogenous dissemination or through CSF infection. It is a treatable entity [1,2]. Mycobacterium tuberculosis can involve the neural and perineural tissues may occur anywhere within the CNS. Tuberculomas may be intradural extramedullary, intramedullary or extradural [4].

## Clinical Presentation

Patient usually presents with pain in the back, numbness, paresthesias and muscular atrophy [3,5].

### Key Imaging Diagnostic Clues:

Depends on the stage of tuberculoma [1,2,4,6].

- a) Early stage shows infective reactions, cord oedema and poor capsule formation, there is enhancement post-contrast.
- b) Late stage shows capsule formation, reduced oedema and may show target sign on T2W images, rim or nodular calcification may also be seen.

Parsons and Pallis in their study in 1965 divided IDDM Tuberculomas into 2 groups. The first group comprises hard round lesions, which are 2 to 3cm in diameter having thin capsule and calcification. The second group there is diffuse avascular grayish tuberculous granulation tissue encasing the cord. Our patient belongs to the second group.

## Conclusion

Spinal cord tuberculoma like TB elsewhere in the body is treatable so clinical suspicion and Imaging diagnoses

hold utmost importance. MR imaging is useful technique in the diagnoses of it but features vary with the stage of the disease [4].

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