INTRAMEDULLARY SPINAL CORD TUBERCULOMA
CASE REPORT

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**Summary:** A relatively rare case of intramedullary spinal cord tuberculoma which presented as rapidly worsening myelopathy is presented.

**INTRODUCTION**

Intramedullary tuberculoma of the spinal cord is a rare lesion. The presentation is in the form of myelopathy and its preoperative distinction from tumour may not be possible by a myelogram or computerised tomography. We present one such case which presented with features of rapidly worsening myelopathy. Relevant literature is also reviewed.

**CASE REPORT**

A 25 year old male was admitted to Command Hospital, Pune in June 1993 with two months' history of weakness and stiffness in both lower limbs. Clinically, he had grade 4/5 power in both lower limbs with brisk tendon reflexes and Babinski sign. There was impairment of exteroceptive and proprioceptive sensations below D5 level.

About 48 hours after admission, his neurological status suddenly worsened. He became paraplegic and incontinent. Iohexol myelogram revealed spinal cord expansion and thinning of subarachnoid space (Fig. 1). CT myelogram was also suggestive of an isodense intramedullary space occupying lesion at D5 level (Fig. 2). The patient was taken up for surgery on the same day and the cord was exposed by laminectomy at D4, D5, and D6. Spinal cord was seen to be swollen at D5 level and midline myelotomy revealed a well-defined, firm, solid intramedullary tumour of the size of a pea, which could be shelled out easily. Post-operative period was uneventful and he gradually regained power and became continent at the time of discharge ten days later. Histopathology of the excised specimen revealed caseation necrosis surrounded by epithelioid cells, lymphocytes and Langhans giant cells. The specimen was negative for AFB.

The patient was alive on antituberculosis treatment.

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therapy (Streptomycin, Isoniazid, Rifampicin and Pyrazinamide for two months followed by INH and Rifampicin for another seven months). He was asymptomatic at the time of last review in Dec., 94.

DISCUSSION

Spinal cord disease from tuberculosis is mostly due to Pott’s disease. Non-osseous spinal tuberculosis could be in the form of extradural, subdural, intramedullary or intradural - extramedullary tuberculoma. Dastur reviewed 74 cases of tuberculous paraplegia without evidence of Pott’s disease and discovered that extradural granulomas occurred in 64%, arachnoidal lesions without dural involvement in 20%, subdural/ extradural lesions in 8% and intramedullary lesions in 8%. Intramedullary tuberculomas are rarely reported in Western literature and prevalence of 2 out of 100,000 cases of tuberculosis is cited. Reports of intramedullary spinal cord tuberculoma from India have been sporadic.

Although discrete tuberculous lesions may be found in every conceivable body part, spinal cord involvement is extremely rare. Involvement of spinal cord compared to that of brain occurs in the ratio of 1:42. The lesions tend to occur predominantly in young people and may be associated with pulmonary form of the disease in 69% of the cases. Their presentation is in the form of myelopathy of insidious onset although sudden neurological worsening can be seen. The patient may have received antituberculosis therapy for tuberculous meningitis. The lesion is located in the thoracic cord in 72% of the cases. One case with involvement of conus has been reported. More than one site in the cord may be affected. The lesion may increase in size while the patient is on antituberculosis therapy.

Preoperative distinction of intramedullary spinal cord tuberculoma from tumour is not possible with CT or myelogram. The cord appears swollen with obliteration of subarachnoid space at the site of lesion. MRI of these lesions reveals low intensity rings with or without central hyperintensity (because of varying amounts of caseation) on T2 weighted images, and low to isointense rings on T1 weighted images. MRI may need to be supplemented with plain radiographs or CT scan to evaluate fully the extent of spinal column involvement.

The recommended treatment of such lesions is surgery. Since MRI as a diagnostic and follow up imaging modality is not yet freely available in developing countries, the practical approach would be to proceed promptly to deal with such lesions surgically. Antituberculosis therapy should not be expected to obviate the need for operative intervention. The lesion is firm and well circumscribed which allows surgical removal without excessive trauma to the cord. The results of surgical treatment together with antituberculosis chemotherapy have been excellent.

References

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