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# Management and Outcomes of Intremedullary Spinal Cord Tumors: A Single Centre Experience

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## Introduction

To review the presentation, management and outcomes of intramedullary spinal cord tumor (IMSCT) and assess the role of intraoperative electrophysiological monitoring (IOEM) in their surgical resection.

## Methods

This was a retrospective review of medical records of adult patients who underwent surgery for IMSCT at our hospital between 2003 and 2015. These patients were identified by Medical Records department of the hospital. Prior approval was sought from hospital's Ethical review Committee (3533-Sur-ERC-15). Data was collected on a self-designed proforma using medical records. Modified McCormick Scale was used for grading patients' neurological status at admission, post-operatively and at follow-up. Statistical analysis was done using SPSS Inc. version 22.

## Results

Forty three cases including 27 males and 16 females were reviewed. Mean age was 33.8 ± 15.1 years while median follow-up was 5 months (range 0.25-96 months). The most common histopathology was Ependymoma (n = 16; 73%). Cervical region was most commonly involved (n = 15; 34.9%). Gross total resection was achieved in 30 cases (69.8%) and Maximum safe resection was performed in 11 cases (25.6%). The pre-operative Mc-Cormick grade was significantly associated with Follow-up Mc-Cormick grade (p-value = 0.002). Eight patients (18.6%) underwent intra-operative electrophysiological monitoring out of which gross total resection was achieved in all cases and none had disease progression or recurrence. Ten patients received post-operative radiotherapy. Thirty five patients (81.4%) had progression free survival at last follow-up.

## Conclusions

Better pre-operative neurological status is associated with good post-operative functional outcome. Gross total resection has better progression/recurrence free survival. Use of IOEM needs further evaluation on a larger scale to assess its impact on outcomes.

## Learning Objectives

To review the presentation, management and outcomes of intramedullary spinal cord tumor (IMSCT) and assess the role of intraoperative electrophysiological monitoring (IOEM) in their surgical resection.

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