



## Intramedullary spinal cord metastases: a single institutional review of survival and outcomes

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### Introduction

Intramedullary metastases are rare lesions affecting the spinal cord in patients with disseminated malignancy. However, due to increased survival, these lesions are being more frequently diagnosed. Herein, we describe the largest retrospective, single institutional case series on intramedullary spinal cord metastases reported to date in the English-language literature.

### Methods

We retrospectively reviewed the clinical course of patients diagnosed with intramedullary metastases at our institution between 1997 and 2016. Patients were considered to have an intramedullary metastasis based on radiographic criteria or pathologic confirmation after surgical resection. Neurologic status was assessed by the Modified McCormick score (MMCS). We analyzed the different approaches to management and factors influencing survival.

### Results

We included a total of 67 patients in the final analysis with a total of 85 lesions. Most lesions were found in the thoracic cord (47%) followed by cervical (34%) and lumbar (18.8%). Mean age at diagnosis was 59.2 ± 10.6 years with 60% (n=41) being females. Median survival was 107 days (range 1 - 888 days). 38% patients (n=26) received conservative management, 53% (n=36) received palliative radiotherapy and only 8.8% (n=6) of patients underwent surgical resection. Age, sex, presence of concomitant brain and other systemic metastasis did not influence survival. However, there was a significant difference in survival in patients with single (median survival -109 days) vs multiple (median survival- 66 days) intramedullary lesions (log rank p= 0.0274). Although very few patients(n=6) underwent surgical resection, they were found to have better median survival than their conservatively/palliatively treated counterparts(14 months vs 6.6 months, p=0.02).

### Conclusions

The overall survival in patients with intramedullary metastasis remains poor. Surgical management may contribute to improved survival and neurologic outcomes in selected

### Learning Objectives

By the conclusion of this session, participants should be able to 1) Understand the clinical course of patients with intramedullary spinal cord metastasis 2) Understand factors influencing survival 3) understand the potential role of surgery in selected patients

### References