A Rare Case of Intramedullary Spinal Cord Metastasis from Rectal Cancer Causing Conus Medullaris Syndrome

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Introduction

Intramedullary spinal cord metastasis is a rare complication among patients with advanced cancer. Patients may present with pain, limb weakness and bowel/bladder dysfunction, depending on the level of compression. We report a case of a patient who presented with conus medullaris syndrome secondary to an intramedullary spinal cord metastasis from rectal cancer.
Methods

Review of patient’s medical notes and images
Results

A 66 year-old female presented to the Emergency Department with 3 days history of new-onset **bilateral leg weakness** and **numbness**, and 3 weeks of atraumatic **back pain**. There was no urinary incontinence. She had a history of **rectal cancer** with lung metastasis (completed surgery and adjuvant chemo-radiotherapy).

On examination, there was no spine tenderness. Power was **3/5 in L2 bilaterally** and **4/5 in L3 to S1 bilaterally**. Sensory level was at **T11**.

Digital rectal examination revealed **lax anal tone and saddle anaesthesia**.
MRI whole spine: solitary intramedullary enhancing lesion at T10, suggestive of intramedullary metastasis, causing significant cord compression and extensive edema.

While inpatient, her leg power deteriorated to 0/5 bilaterally. In view of the acute neurological deterioration, she was taken for emergency T9-T10 laminectomy and excision of intramedullary spinal tumour.
Intra-operatively, a **soft greyish tumor** was excised with a clear plane separating it from the spinal cord. Post-operatively, the patient’s leg weakness remained stable but **sensation improved**.

**Histology:** metastatic adenocarcinoma consistent with colorectal primary.

**Post-op MRI spine:** Post-surgical excision cavity.
Discussion

Our case illustrates a case of a lady with background of rectal cancer who presented with clinical features of conus medullary syndrome.

MRI spine showed an intramedullary lesion causing cord compression and extensive edema. During the course of her hospital stay, she developed progressing worsening of lower limb neurological deficit.

Prompt intervention in the form of emergency decompression and excision of intramedullary tumor improved her neurological outcome.
Summary points

Intramedullary spinal cord metastasis from rectal carcinoma is rare.

Neurosurgeons should remain cognizant of this possible diagnosis when treating patients with a history of rectal malignancy, especially if they present with acute neurological deficits.

Urgent surgical decompression is indicated to halt progressive neurological deterioration.