

HOSPITAL PHYSICIAN®

ONCOLOGY BOARD REVIEW MANUAL

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Medical Emergencies in Oncology: II

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I. INTRODUCTION

Space-occupying lesions (from local tumor growth or metastatic spread) are a major cause of morbidity and mortality from malignancies. Depending on the location of these lesions, symptoms may be limited to local swelling and discomfort; however, if vital structures are affected, this constitutes a medical emergency. Spinal cord compression, superior vena cava syndrome, and brain masses often present with characteristic symptoms; these conditions require specific diagnostic and therapeutic measures, which are described in this manual.

This is the second part of a 2-part review on oncologic emergencies. The first part discussed the management of metabolic emergencies and neutropenic fever. The second part discusses the management of space-occupying lesions and also provides sample board review questions and answers for self assessment.

II. EMERGENCIES RELATED TO SPACE-OCCUPYING LESIONS

A. **Epidural spinal cord compression**

1. Definition. It is caused by compression of the

thecal sac by tumor in the epidural space at the level of the spinal cord or the cauda equina. This is one of the most common neurologic emergencies, occurring in about 5% of all cancer patients.¹⁻³

2. Etiology

- a. Cord compression most commonly occurs because of metastases from the prostate, lung, or breast; each account for 15% to 20% of all cases.⁴ It occurs less frequently in renal cell carcinoma, non-Hodgkin's lymphoma (NHL), multiple myeloma, and gastrointestinal cancers.
- b. The location often depends on the underlying malignancy. Lung and breast cancers predominantly affect the thoracic spine where approximately 60% of all cases occur. Colorectal and pelvic tumors predominantly affect the lumbosacral spine, accounting for 30% of cases. The remaining cases affect the cervical spine. Multifocal involvement is present in 33% of all cases.
- c. Most complications occur because of growth of metastases from the vertebral bodies (**Figure 1**).
 - 1) However, paraspinous tumors,