



Oncologic Emergencies: When to call the Radiation Oncologist

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Disclosures

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- Other: none

Mitigating Potential Bias

Not applicable

Learning Objectives

At the end of this presentation the learner will be able to:

1. Recognize oncologic emergencies and describe the role of radiation therapy to manage them.
2. Discuss the role of primary care providers in the investigation and management of oncologic emergencies.

Common Oncological emergencies

- Spinal Cord Compression
- Superior Vena Cava Obstruction
- Acute bleeding
- Febrile Neutropenia
- Hypercalcemia
- Tumour Lysis Syndrome

Distribution of indications for emergency RT treatment

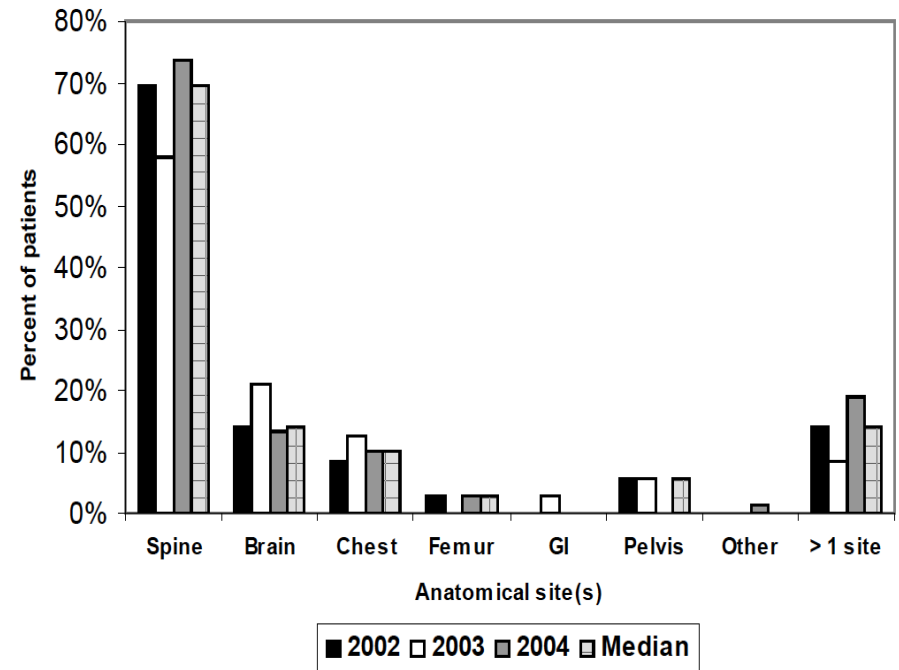
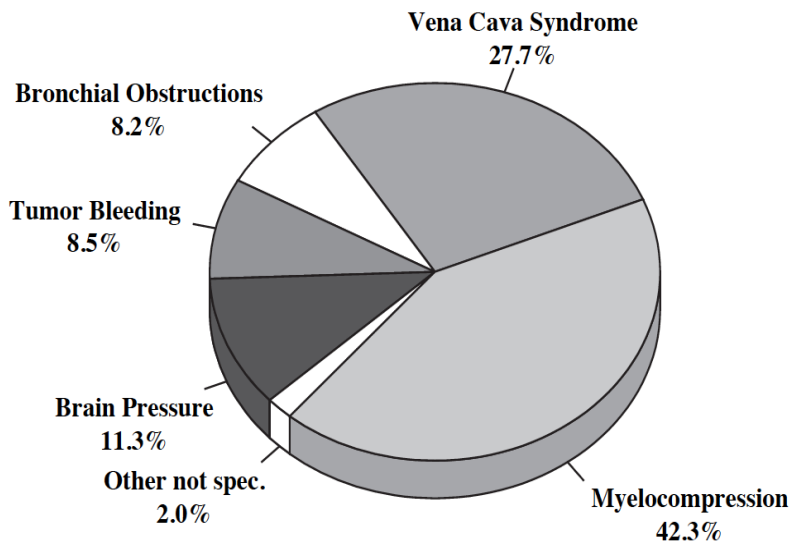
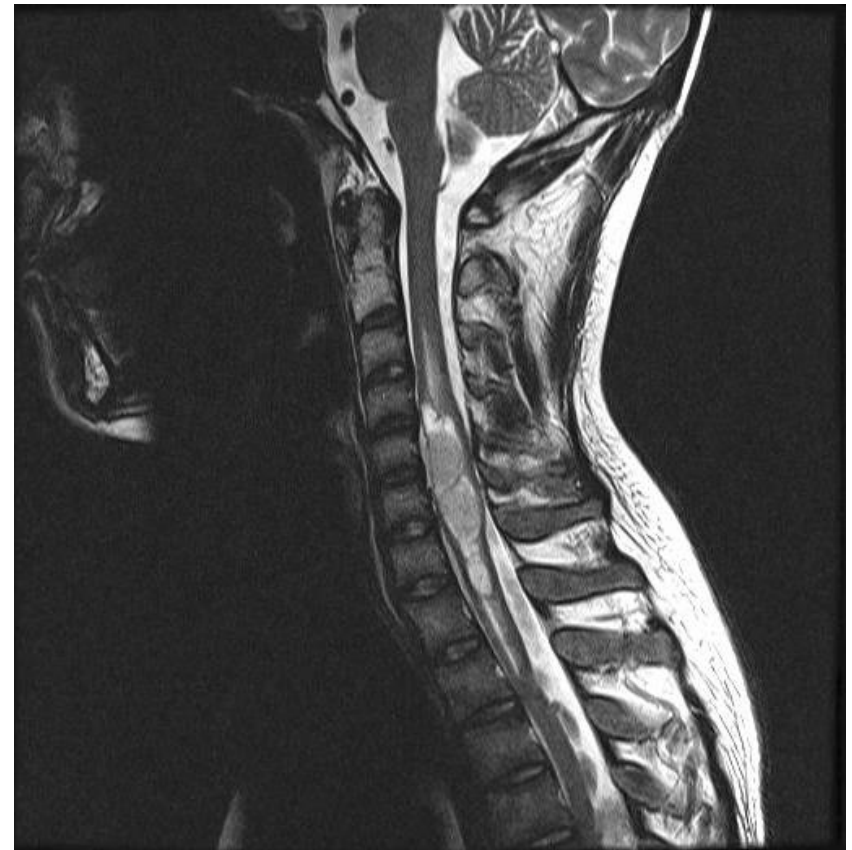


FIGURE 1 *Anatomic sites treated as emergencies over a weekend or holiday. GI = gastrointestinal.*

Spinal Cord Compression

- Major emergency requiring radiation treatment
- Commonly from Ca prostate, lung and breast
- Ambulatory status is most important prognostic feature



Spinal Cord Compression

Symptoms:

- Pain localized to spine or radicular pain
- Pain worsening with movement
- Numbness, tingling, limb heaviness
- Altered bowel / bladder habits
- Perianal numbness

Signs:

- Motor weakness
- Sensory impairment
- Conus medullaris syndrome

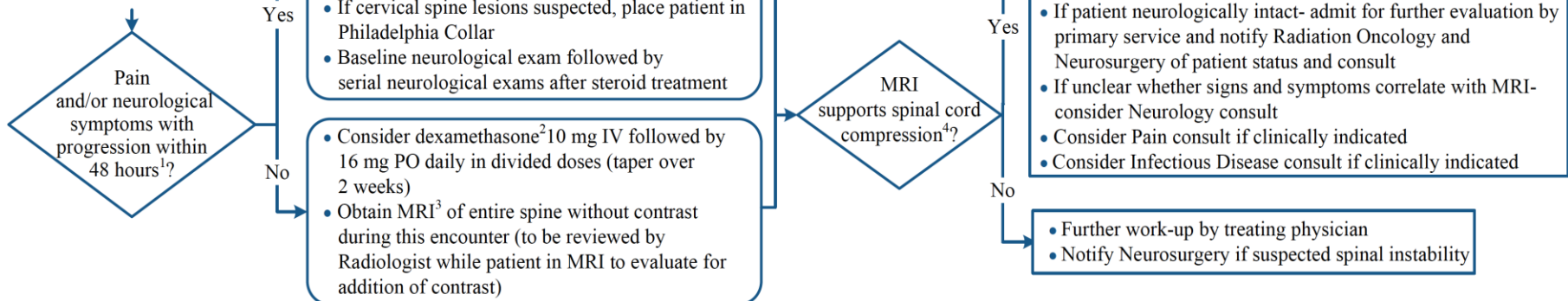
Investigations

- Non-contrast MRI of whole spine is best test
- CT scan if MRI contraindicated or not available
- Biopsy if:
 - metastatic disease not proven/documentated
 - no previous diagnosis of cancer

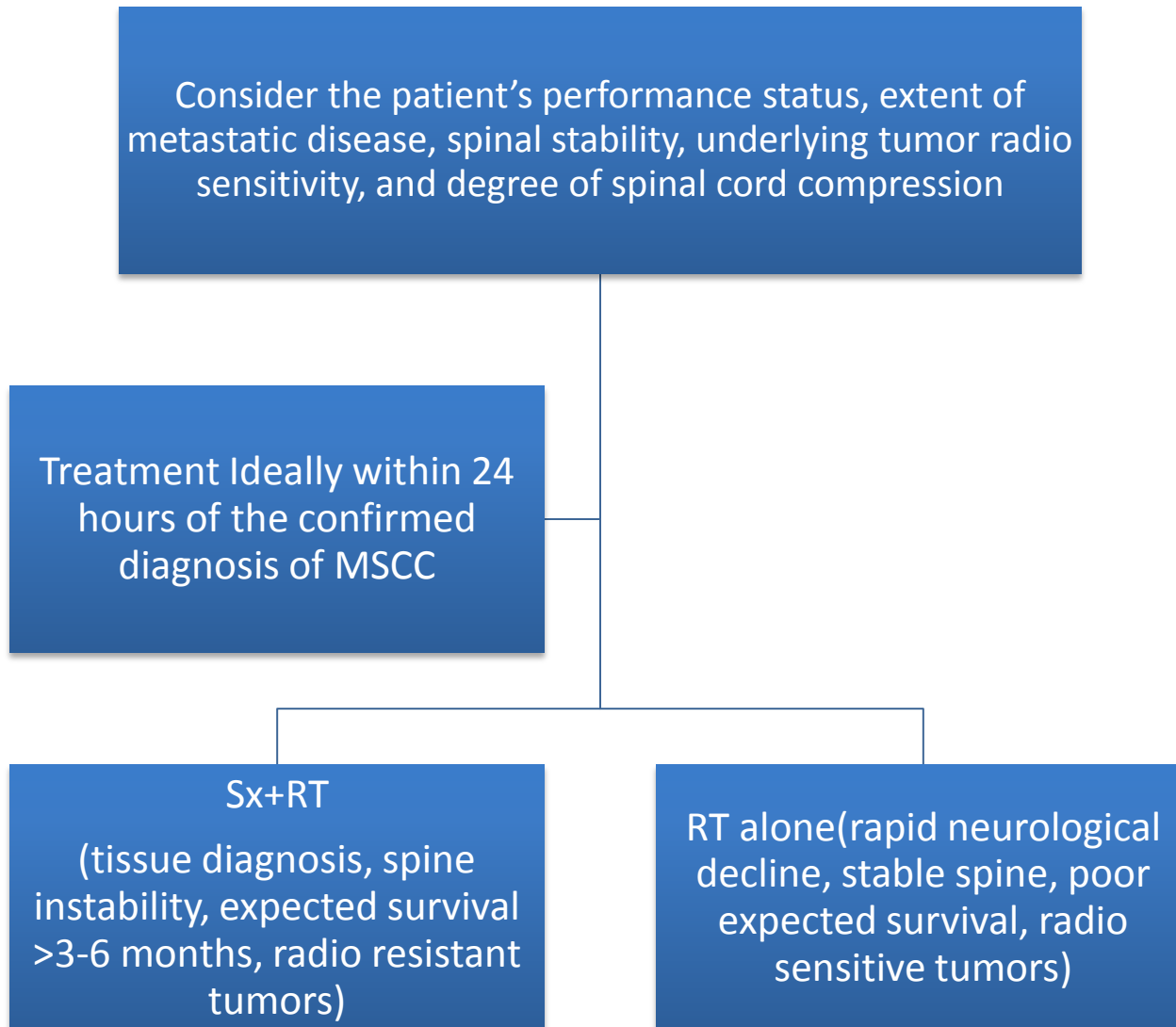
Algorithm

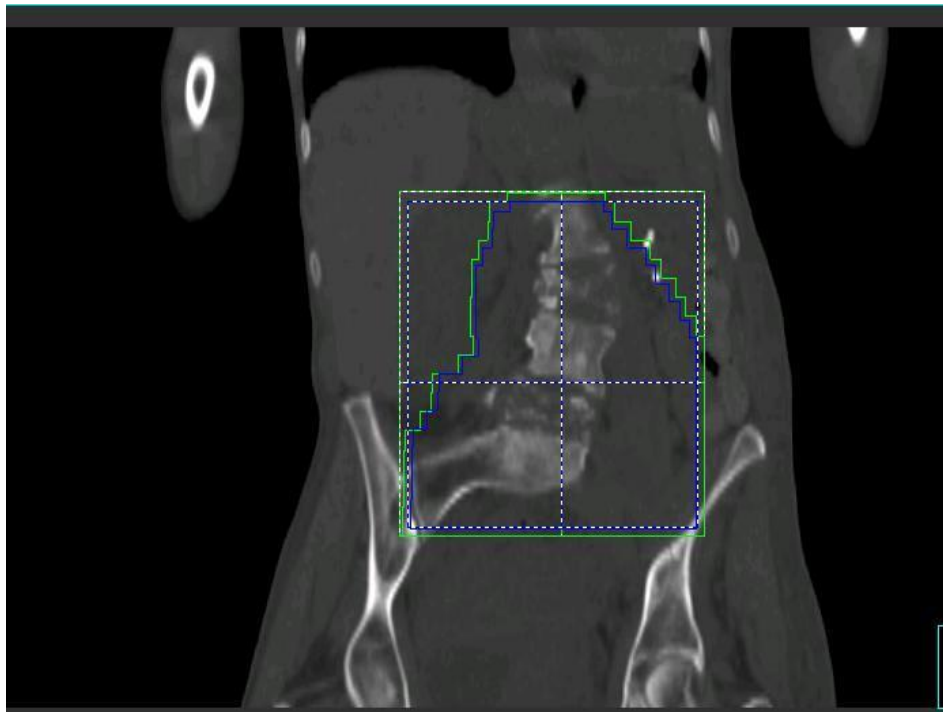
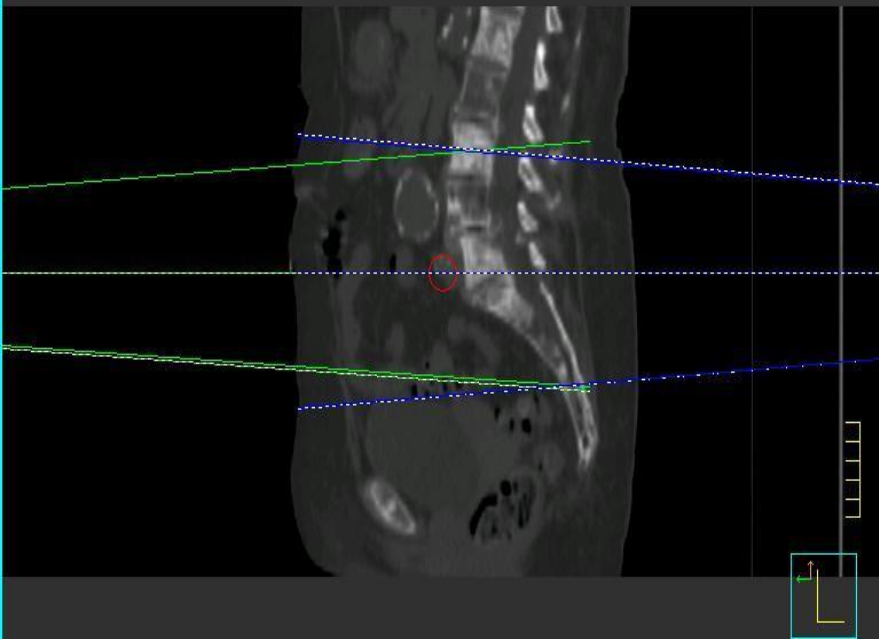
PATIENT PRESENTATION

Suspected spinal cord compression (*severe pain or abnormal neurology, or incidental finding on MRI- not intended for traumatic injuries. If in emergency center, triage patient as emergent.*)



- Pain control
- Hydration and nutritional status
- Catheterize if urinary retention
- Bowel care
- Stabilization if spinal instability





Spinal Cord Compression – Key points

- A history of persistent worsening back pain in a patient with cancer warrants urgent investigation.
- Immediate MRI of the whole spine is the imaging modality of choice.
- Surgical resection and / or radiotherapy are recommended treatment options in majority cases
- Failure of immediate diagnosis and treatment is associated with significant morbidity and compromised quality of life.

Superior Vena Cava Obstruction

- Gradual compression of the superior vena cava, leading to edema and retrograde flow
- Most commonly caused by intrathoracic malignancy (lung cancer, lymphoma, germ cell tumors, thymoma)
- Associated with advanced disease



Superior Vena Cava Obstruction

Symptoms:

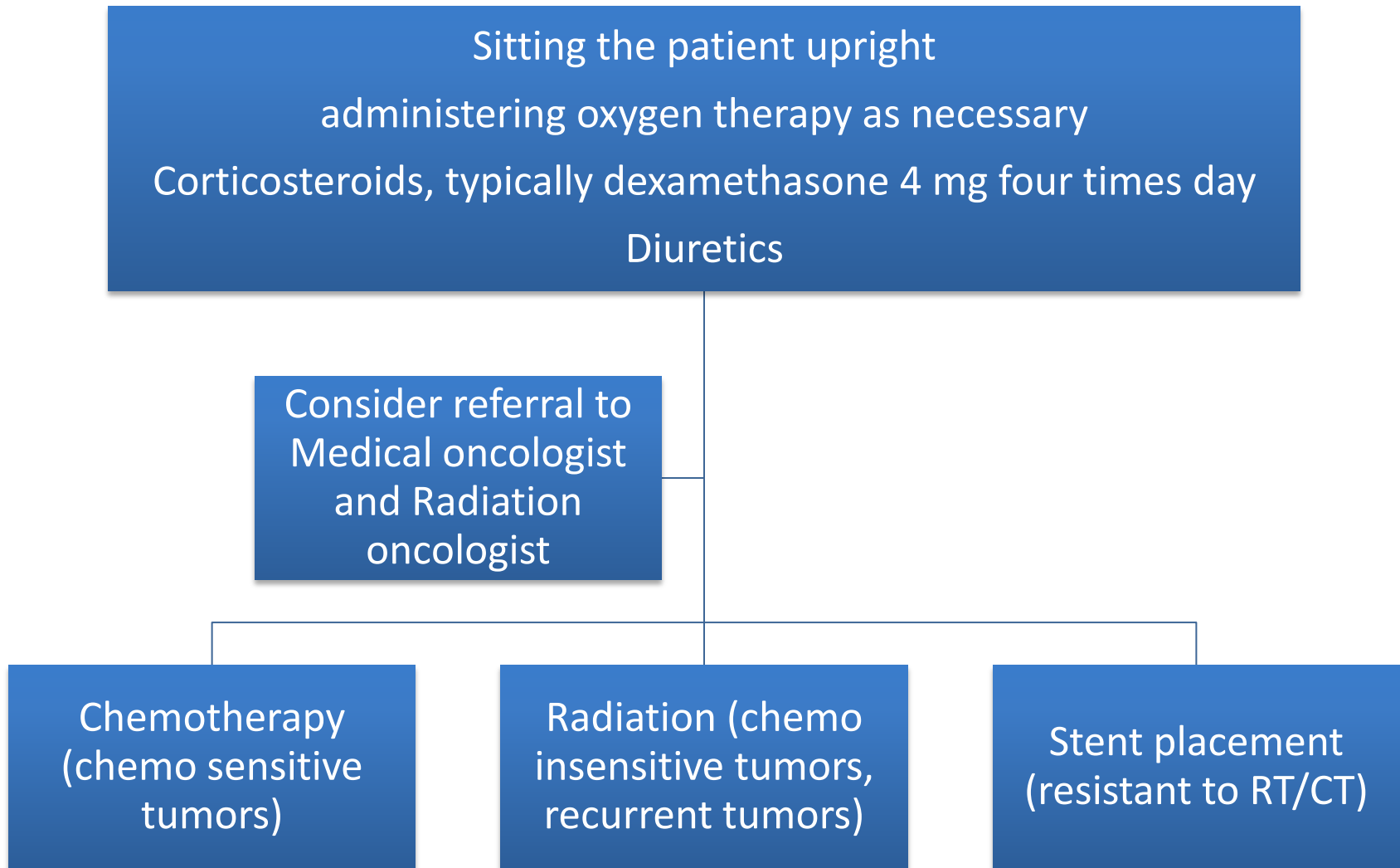
- Dyspnoea
- Neck and facial swelling
- Head fullness / headache
- Trunk and arm swelling
- Cough
- Dysphagia

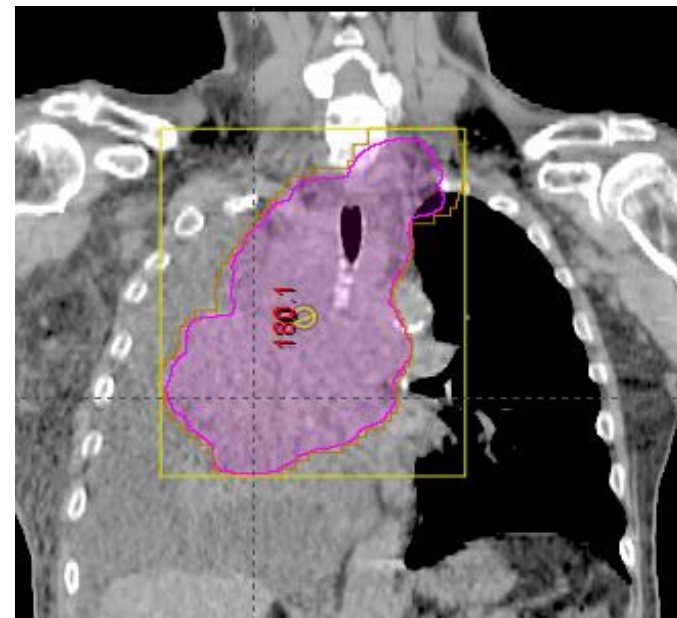
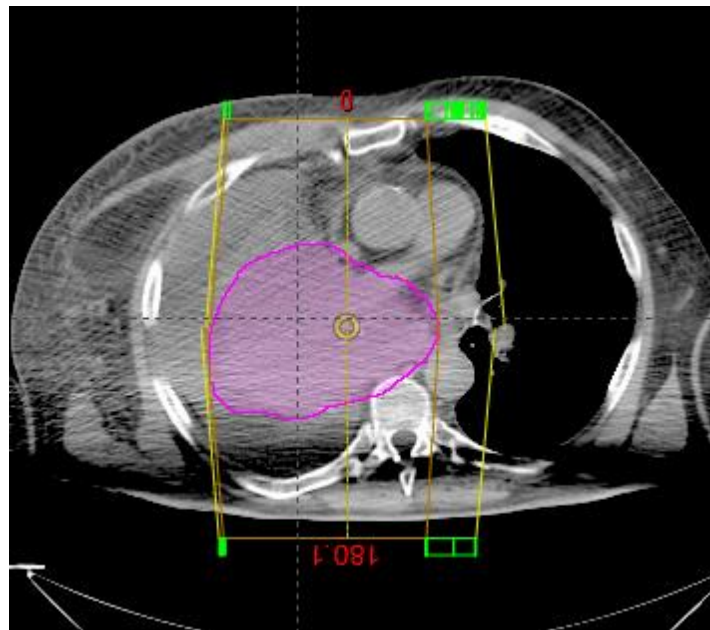
Signs:

- Facial or neck swelling
- Dilated chest vessels
- Stridor

Investigations

- Contrast enhanced CT chest
- CBC





SVCO– Key points

- Initiation of high dose steroids often results in symptomatic relief.
- Radiotherapy provides good palliation in the majority of patients.
- Insertion of an intravascular stent often results in symptomatic relief within 24–48 h.

Radiation Oncology consult process

If the radiation oncology referral is **urgent** then please contact on call Radiation Oncologist through paging at **204-787-2071** (Health Sciences Centre)

Radiation Oncology consult process

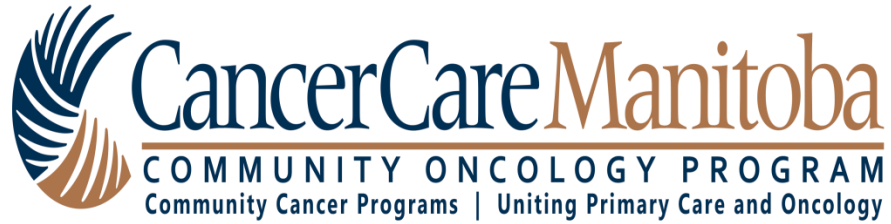
Central referral office, CCMB

Fax: 204 786 0621

Phone: 204 787 2176

Take home message

- Radiation therapy has a key role in the management of metastatic spinal cord compression and superior vena cava obstruction
- Prompt referral and appropriate imaging will help in timely initiation of therapy
- Primary care providers have a vital role in the management of oncological emergencies



QUESTIONS?

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