PALLIATIVE CARE TIPS

Issue # 28 Thoracic Radiotherapy for Superior Vena Cava Obstruction (SVCO) Syndrome

(Collect them all)

Contributors (May 2007): Alysa Fairchild, MD, and Don Yee, MD, Radiation Oncologists, Cross Cancer Institute
Editor: Yoko Tarumi, MD, Palliative Care Consultant, Royal Alexandra Hospital

SVCO

- SVCO is the obstruction of blood flow via external compression, direct invasion or thrombosis of the SVC, and is caused by malignancy in 90-95% of adult cases.

Signs & Symptoms

- Severity of symptoms is generally determined by speed of development of the obstruction; a slowly developing obstruction allows for establishment of collateral circulation, resulting in more gradual onset of milder symptoms.
- Dyspnea is the most common symptom. ¼ - ½ of patients experience head/nasal congestion, cough or arm swelling. Other symptoms include headaches, chest pain, dysphagia, hemoptysis, epistaxis, syncope or lethargy. Symptoms are usually worsened by bending forward or lying supine.
- Signs include orthopnea, neck/chest/arm/retinal vein dilatation, facial/chest/arm/neck edema, cyanosis, tachypnea, facial plethora, or Horner's syndrome. A positive Pemberton's sign may be present: increased facial suffusion with elevation of arms.
- To appreciate the degree of edema present if you haven't met the patient before, ask to see their driver's license.

Diagnosis

- In the setting of known intrathoracic malignancy, the diagnosis is usually made clinically based on contrast-enhanced CT scan.
- If the patient does not have preexisting malignancy, biopsy of any lung mass is required unless the patient is clinically unstable.
- The differential diagnosis includes CHF and cardiac tamponade - both can be differentiated from SVCO by the presence of lower extremity edema. CHF may also produce crackles in the lungs.

Treatment

- Respiratory obstruction, neurologic dysfunction and obtundation require emergency treatment. Otherwise, management should be on an urgent basis, and is directed at both relieving symptoms and determining if an underlying malignancy is curable.
- Although chemotherapy is used in some situations, RT is usually initial therapy, and can be given with either curative or palliative intent, depending on disease extent.
- 70-85% of patients notice improvement in symptoms, usually starting 3-4 days after RT, and proceeding over a median of two weeks. Most remain symptom-free until death. NNT for improvement of SVCO with RT is 1.3.
- Other treatment options include expandable stent, or best supportive care. For example, bedrest with the head of the bed elevated allows gravity to assist with venous drainage, and supplemental oxygen assists with dyspnea.

Outcomes

- Survival depends on type and stage of underlying cancer. Death from SVCO itself is unusual. Broadly, median survival for patients treated with either RT or chemo is 2-10 months and with stenting alone 1-7 months.

References

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