

PALLIATIVE CARE TIPS

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Palliative Care Tips – Thoracic Radiotherapy for Lung Cancer

Lung Cancer and Thoracic Symptoms

- There are two main types of lung cancer: non-small cell lung cancer (NSCLC), which comprises 75-80% of all lung cancer, and small cell lung cancer (SCLC), which makes up the rest.
- About 1/3 of patients with NSCLC present with locally advanced disease (too extensive for surgical resection, but without metastases, or spread, beyond the thorax). About ½ of all patients present with metastatic disease beyond the thorax. The vast majority of these patients are treated for symptom control only.
- 80-85% of patients with SCLC present with extensive stage disease, which is not curable. These patients are also treated with palliative intent.
- The majority of patients with advanced (or extensive stage) lung cancer will have symptoms. Cough, hemoptysis and chest pain are the most common thoracic symptoms, affecting 50-90% of patients at diagnosis. Patients may also experience dyspnea, dysphagia, airway obstruction, hoarseness, post-obstructive pneumonitis, arm pain, Horner's syndrome, or superior vena caval obstruction (SVCO).

What is the Role of Radiation in Advanced Lung Cancer?

=> Symptom relief and improvement of quality of life. Trial results concerning survival are conflicting to date.

- Hemoptysis is improved in approximately 70-85% of patients, for a number needed to treat (NNT) of 1.25. It completely resolves in >50%.
- Chest pain is completely or partially resolved in 40-75%, a NNT of 1.43.
- Other symptoms improve in ~50-75% of patients.
- The duration of symptom relief varies and on average lasts for ½ of the patient's remaining lifespan.
- Global quality of life improves in 1/3 of patients after chest RT.

How Much Radiotherapy is Enough?

- Various schedules of palliative RT have been used for these patients, but most commonly in Canada daily treatment over 1-2 weeks is prescribed, based on age, comorbidities, performance status and symptom burden.
- Alternative approaches such as 'split-course' RT are also used: commonly, this involves two weeks of daily RT followed by a one-month break, repeat imaging, and then two more weeks of treatment.
- Acute side effects of chest RT consist of dysphagia (esophagitis), cough, fatigue, nausea, skin erythema, alopecia, chest pain, anorexia, rigors, sweating and fever.
- The risk of pneumonitis (a subacute side effect) and myelopathy (a late side effect) with palliative RT doses is very small. Higher doses are usually associated with more severe acute side effects.
- For information on the logistics and planning of RT, see Palliative Care Tips #26.

What About Asymptomatic Patients?

- One recent trial randomized asymptomatic patients to immediate RT, or delayed RT until the time patients became symptomatic.
- 42% of patients in the delayed arm ultimately required RT at a median of four months. No difference was observed in survival or the proportion of patients alive at six months without symptoms (~1/4). They concluded that there was no evidence that immediate palliative RT improved quality of life, survival or symptom control.
- In a different study, all patients were treated with RT initially but stratified by whether they were symptomatic or not. Immediate RT given to asymptomatic patients was found *not* to prevent the eventual development of disease-related symptoms.
- Impending airway obstruction or SVCO is a different matter, and consideration should always be given to consultation with a radiation oncologist.

References

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