Palliative Radiotherapy

Mini Chalk Talk

Referenced from Spencer K, Parrish R, Barton R, Henry A. Palliative Radiotherpy. BMJ 2018;360:k821. (doi: 10.1136/bmj.k821)
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Scenario:

You are a G.P. working in a practice. You see Mr. James who is an 70 year old gentleman with metastatic lung and metastatic prostate cancer. He has had several lines of therapy but his disease progressed. 2 months ago the oncologists and Mr. James agreed to focus on palliative care and he was discharged to the community on Gold Standards Framework.

Mr. James is complaining of lumbar back pain pain. He has seen you last week for this and you prescribed some regular paracetamol and codeine + PRN oromorph (allergic to NSAIDS). He returns and still has 7/10 pain most of the time. No neurological signs suggesting cord compression.

He is no longer able to go on short walks with his wife or play with his grandchildren due to the pain.

Previous scans show presence of extensive bony metastases in his lumbar and thoracic vertebrae.

You surmise that the cause of his pain is likely due to bony metastases.

1. What do you do next?

a) MR morphine and review back in 1 weeks time
b) Refer for palliative radiotherapy
c) Refer for intravenous bisphosphonates

2. What should you tell a patient to expect if you refer them for palliative RT?

3. What side effects do you imagine palliative RT might have?

4. Can you list other symptoms due to cancer that you think might respond to palliative RT?

Answers

1. None of the answers are entirely right or wrong!

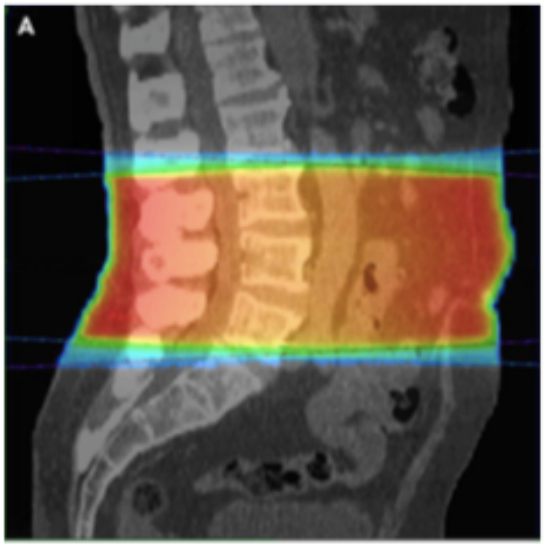
	PRO	CONS
MR Morphine	Can give a prescription on the same day Will help provide more background pain relief.	Codeine is a weak opioid and his pain did not respond to it at all or to PRN morphine. Will more opioids actually help? Is there a neuropathic component to the pain?
Refer for Palliative Radiotherapy	You can consider stronger analgesia AND make a referral for palliative RT the same day. 60% of patients with bone pain due to metastases respond to palliative RT within 2-3 weeks. Can be delivered as a single fraction treatment in one day If Responds, is likely to last a few months at least. Can decrease opioid dose/stop as tolerated and thus less associated side effects	It will likely take a week to be seen by the oncologist and have a planning scan. And a few more days to receive the single fraction of radiotherapy. Approximate 1.5-2 weeks to treatment and 2 weeks for response - adds up to 4 weeks from date of referral for pain relief (for routine referrals) 35 % of patient experience a pain flare immediately after RT, settles within 3 days
Intravenous bisphosphonates (3rd generation bisophosphonates like zolendrate or ibadronate) Previous studies have shown to effect on bone pain using 2nd generation pamidronate vs placebo	A single Randomised controlled trial in the UK showed that a single dose of IV ibadronate offered equivalent pain relief to single fraction Radiotherapy for bone pain in prostate cancer. Can be considered in patients if RT is not possible. https://www.ncbi.nlm.nih.gov/pubmed/26242893	Similar time to effect - pain was assessed in the trial at 4 weeks and 12 weeks after treatment. The trial did not assess bisphosphonate AND RT. General body of evidence for bisphosphates is less. Need to ensure adequate renal function

2. It is important to counsel the patient that palliative radiotherapy might help their symptoms but they need to be referred to the clinical oncologist to discuss this in detail.

The process is likely to involve 3 steps: A consultation —-> a planning scan ——> Radiotherapy treatment.

The experience of radiotherapy is similar to having a CT scan except the couch patients have to lie on is flat and hard. The time on the couch for all the treatment is about 15 minutes.
(Sometimes for head and neck treatments they might need to have a mask or mould made. If necessary this is done before the the planning scan. For lumbar spine treatments, no mould is necessary)
If can take 2-3 weeks for effect. There might be a flare of pain before it gets better.

3. Side effects will be due to dose to anatomical structures in the region of conventional radiotherapy. So for lumbar spine treatments : this picture illustrates the expected palliative radiation field. As you can see - the bowel will receive RT dose so acute toxicities can include diarrhoea, bloating, nausea. Acute Fatigue is common with most radiotherapy treatments. (2/3rd of patients)



4. Multiple symptoms respond to radiotherapy. Any symptom caused due to LOCAL effects of cancer is potentially amenable to RT.

1. Bone pain due to metastases,
2. Dysphagia/pain/bleeding/cosmetically disfiguring mass/airway compromise: Head and Neck Cancer
3. Neurological symptoms due to local compression in brain mets
4. Metastatic spinal cord compression (neurology due to local spinal cord compression)
5. Bleeding from rectal/bladder/gynaecological tumour mass
6. Dysphagia due to oesophageal cancer
7. Odorous mass/disfiguring cutaneous mass/discharge from mass in skin cancer or cutaneous metastases