RADIATION ONCOLOGY IN PALLIATIVE CARE May 30/12

50% of cancer patients will receive palliative RT during the course of their illness
Some patients, such as those with bone mets from breast or prostate cancer may receive multiple courses of RT (like spot welding)

#1 BONE PAIN – significant pain relief in 50-80%
-up to one third of pts achieve complete pain relief at tx site
-full effect by 2 – 4 weeks after RT
-sometimes single#, or 5# depending on volume, clinical status; single fraction allows for same day sim and tx
-well tolerated
-pain flare in up to a third of patients; lasts average of 3-5 days post RT, can prevent with dexamethasone 4 mg bid x 5 days. Be aware and increase BTP
-other side effects site dependent (eg thoracic spine – n/v, lumbar spine – diarrhea)

PATHOLOGICAL FRACTURES of wt bearing bones usually require surgical intervention followed by RT; consider ortho referral as well for painful intramedullary lesion with over 50% of diameter involved in cross section with lytic met. Explore kyphoplasty/vertebroplasty for selected pts with one or two vertebral compression #. (interventional radiology / neurosurg / ortho) depends on performance status/life expectancy

#2 CORD COMPRESSION
-occurs in 3% of those dying from cancer
-lung, breast, prostate and renal cancer most common tumor types
-usually caused by extradural metastases (bone or paraspinal soft tissue masses causing compression of cord or nerve roots)
-URGENT CONSULT WITH RO or NEUROSURGERY REQIRED
why urgent? Delay in initiating treatment is associated with deterioration in motor and autonomic function ie. increases risk of permanent paralysis

- most common in THORACIC SPINE (70%)
  next LUMBOSACRAL (20%) CERVICAL (10%)
- present with PAIN (70%), weakness, sensory changes, bowel/bladder dysfunction

EARLY SIGNS – 90% will have pain to spine or radicular in nature (band like in chest or down leg if lumbar).
Typically worse with mov't, cough/sneeze. Present x months before neurological sx appear. Tell patient to watch for neuro sx and report to doctor ASAP.

INTERMEDIATE SIGNS – weakness, sensory changes (tingling, numbness, dermatomal pattern)

LATE- urinary retention, altered bowel habit (constipation, loss of control), motor weakness. May progress to paralysis within hours to days.

EXAM – tender to percussion over spine

- pain in distribution of nerve roots
- sensory loss

- muscle weakness
- distended bladder, decreased rectal tone

CALL RO/START DECADRON 10 mg stat, then 4-6 mg q6h
COMPLETE MRI SPINE/CT +/- myelogram

SURGERY – role if single lesion, rapid loss of neuro fn,
Spinal instability, failure to respond to RT, unknown dx (may be nonmalignant, or if suspicious, gives tissue bx), max allowable RT already given in area

- laminectomy, decompression, fixation

Long term performance better if able to have surgery.

Goals of RT – decompress cord and nerve roots through cytoreduction of tumor, prevent progressive neuro disease, pain relief, establish durable local control

RT reduces pain 70% cases, improves motor function 25-45%. ONLY 10% OF COMPLETELY PARALYTIC PATIENTS WILL REGAIN ABILITY TO WALK AFTER RT.

If walking pre-tx – 98% walking post tx
If nonambulatory – 60% walking post tx
If paraplegic – 11% walking post tx

25% recur within tx field at 12 months.

#3 BRAIN METS – dex 4 mg q6h (10 mg stat dose if very symptomatic, seizures)
-typical palliative patient offered WBRT or best supportive care depending on age/performance status/KPS score
-solitary brain met without evidence of met disease elsewhere may consider surgery or gamma knife tx
-RT side effects include hair loss (may be permanent), erythema scalp, n/v/ha/worsening of neuro sx and seizures secondary to radiation induced edema, possible cognitive and memory impairment long term (new trial sparing hippocampus)

#4 BLEEDING TUMORS
-typically in stomach, bladder or gyne malignancies
-may improve quality of life, reduce need for transfusion

#5 FUNGATING TUMORS
-skin, chest wall (breast, H&N)
-ortho voltage – very superficial and well tolerated
-may decrease bleeding, odor, size, pain

WHEN IN DOUBT, ASK RO IF PT CAN RECEIVE MORE RT
CAN PT TOLERATE LYING FLAT? HOLDING STILL? MASK (brain)?

Palliative Radiation Therapy Guidelines ABCC, Feb,2010, Dr. R. Koul
Handbook of Bone Metastases, Sunnybrook Health Sciences Centre
Cancer Management: a multidisciplinary Approach, 13th edition