Pelvic Radiotherapy Late Effects Service

Stephanie Millar
Aims

- Background
- What is Pelvic Radiation Disease? (PRD)
- Why late effects happen?
- Why the need for a late effects clinic?
- Our clinic process at the BWoSCC
- Summary
Deliver as high a dose as possible to the tumour but beware of surrounding tissues, structures and OAR’s.

Bladder and Bowel toxicity is our main concern when delivering radiotherapy to the Pelvis.

This can lead to radiation cystitis, fistulae, strictures and second malignancy.
What is Pelvic Radiation Disease?

- PRD is a term used to describe a collection of unpleasant symptoms that can arise after radiotherapy treatment to the pelvis for cancers such as cervical, prostate, bladder and bowel.

- Can affect bowel, bladder and reproductive organs
Why do late effects happen?

- Vascular and connective tissues have a slow turnover rate, so even though they sustain radiation damage at the time of treatment, the effects are not expressed until repeated cell division is attempted.

- Can take several months to many years to develop and is largely a function of the total radiation dose and fraction size.
What physiological changes?

Normal gut function balances...
- Secretion
- Fluid reabsorption
- Contractility
- Permeability

Upper GI tract
- Carbohydrate malabsorption
- Fat malabsorption
- Bacterial overgrowth
- Vitamin malabsorption
- Bile acid malabsorption
- Visceral neuropathy
- Pancreatic Insufficiency

Any insult can cause
- Altered microbiota
- Altered motility
- Altered fermentation
- Altered sphincter control
- Visceral neuropathy

Lower GI tract
Why a late effects clinic?

- More survivors – population growing
- More people treated with XRT
- 50% GI late effects of treatment
Why a late effects clinic?
Challenges

- Time in secondary care
- Lack of knowledge of how to manage these patients in primary care

Different terms:
- PRD
- Radiation enteritis
- Radiation proctitis
Late effects clinic BWoSCC

- Who –
  - Why a therapeutic radiographer?
- What
- Why
- When
GI Side effects

- **17 symptoms**
  - Faecal Incontinence
  - Faecal urgency
  - Bleeding from bowel
  - Steatorrhea
  - Abdo pain
  - Rectal pain
  - Fatigue
  - Nausea or vomiting
  - Pelvic Insufficiency fractures
  - Abdo bloating
  - Belching/burping
  - Borborygmi
  - Excessive wind
  - Heartburn
  - Incomplete emptying
  - Bladder issues
  - Sexual concerns
What are we diagnosing?

Small Intestinal Bacterial Overgrowth (SIBO)
- Diagnosed using GHMBT
- Treatment - 7 days antibiotics of Rifaximin

Bile Acid Malabsorption (BAM)
- Diagnosed with SeHCAT scan (NM)
- Treatment - bile acid sequestrant + low fat diet
- Dietician referral
Exocrine Pancreatic Insufficiency (EPI)

- Diagnosed with a stool sample
- Treated with Creon
- Dietician referral
PRD Education

- Why late effects happen
- Show treatment plan
What tests do we do?

- Extensive blood tests
  (Stool sample, Vitamins, Oestradiol)
- HNA
- Examination- Abdo/Pelvic
- Medication review
Interventions

- Diet manipulation
- Toileting techniques exercises
- Reduce caffeine intake
- Correct use of anti-diarrhoeals, Laxatives
- Good skin hygiene
Referrals

- Psychology
- Psychosexual counselling
- Dietetics
- Menopause clinic
- Macmillan/BCC
- Advice - financial, insurance
Summary

- PRD is a recognisable condition
- Education and awareness of disease
- Our main aim is symptom management and improving QoL
Any Questions????????