

Consequences of pelvic chemo-radiation in anal cancer - supporting recovery

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Focus: Health Service Research/quality improvement

- Late effects following pelvic treatment in anal cancer – prevalence and experience
- Changing practice to support recovery
- Advances in radiotherapy techniques – evaluating late effects

Background

- Rare and slightly more common in women
- Approx 1400 new diagnosis per year in UK
- Incidence rates have more than doubled in last 3 decades + rising
- Number of associated risk factors including 90% linked to HPV
- Main treatment- chemo with radiotherapy to the pelvis with surgery held in reserve
- Survival (CRUK 2016)
 - 64% at 5 years
 - 57% at 10 years

Background –acute side effects

- Acute side effects- common and well recognised
- Late effects data limited in anal cancer
- Bowel/gut symptoms are the most common chronic side effect reported following pelvic radiotherapy
- Can affect quality of life/daily activities
- Growing interest in developing an agreed approach to assessment, investigation and management of late effects along with referral pathways for common problems (British Society of Gastroenterology, Association of Colo-Proctology, NCSI, Jervoise Andreyev's work, Macmillan, TCAT)

1st study: 17 year cohort study baseline data (2015)

- **Aim:** Evaluate long term bowel, urinary and sexual function in patients who had undergone pelvic chemo-radiation for anal cancer
- **Sample:** all people treated during the period January 1990 to December 2007 S/E Scotland
- **Data Collection:**
 - EORTC C-30 and CR38, MSKCC Bowel Function Instrument
 - Completed once, minimum of 2 years from treatment

Results

- 91 of 106 people eligible
- 42/91 agreed to participate (46%)
- Median age 54.7 years compared to 61.2 years in those who declined
- Median time interval 5.3 years
- Higher percentage women (73%)

Bowel function

- In a sub-set of people treated:
 - 54% required to open their bowels 4 or more times (4-9) over a 24 hr period
 - 35% were 'rarely' or 'never' able to wait 15 minutes to get to toilet
 - 50% were 'rarely' or 'never' able to control flatus
 - 35% limited the types of solid foods they eat to control function
 - 22% experience faecal leakage
 - 39% required to use a protective pad
 - 29% altered their daily activities because of bowel function 'always' or 'most of the time'

Quality of life

- 60% of people viewed their future perspectives positively
- Both men and women reported high symptom scores for sexual function difficulties –median score of 83.3 (50.0 100.0)
 - Maintaining an erection 90%
 - Dry vagina during intercourse (85%)
 - Pain during intercourse 100%
- 17% reported financial difficulties (all of whom were under the age of 65 years)
- Reported lower scores for role, emotional, social and body image (median score 66.7)

What have we learned?

- In anal cancer a significant number of people have ongoing issues 5 years+ after treatment

What does the data not tell us?

- The impact of symptoms on day-to-day life
- How people manage these difficult problems
- What self management/adaptive strategies do they use
- Symptoms identified are only those listed in the QoL tools

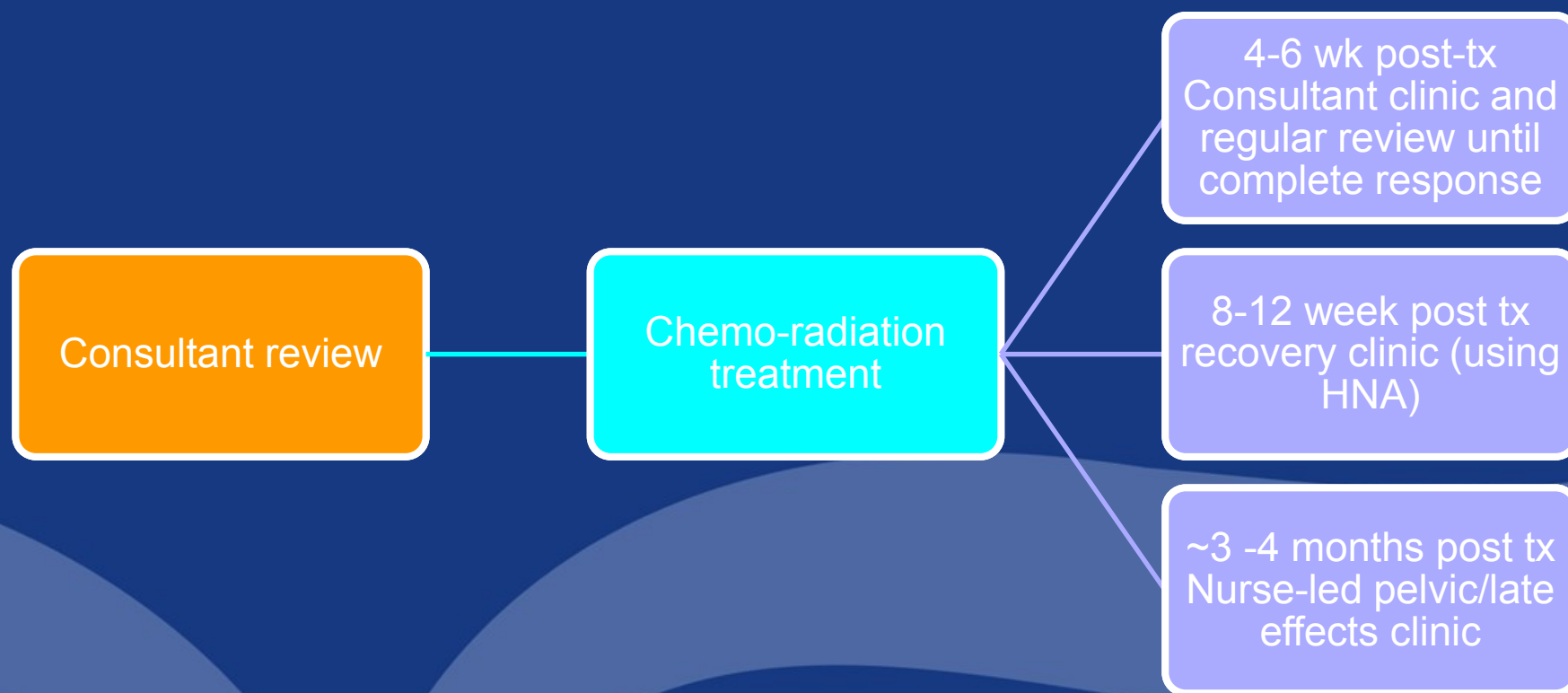
2nd study - Patient experiences in the first 3 years from treatment (2017)

- Interviewed 27/40 patients (67%)
- Digitally recorded, nVIVO for analysis
- Additional 9 HCPS interviewed
- Results: in addition to distressing physical symptoms known:
 - Fear of recurrence
 - Loss of confidence
 - Fatigue
 - Profound impact of quality/recovery
- Resilience, adaptive strategies, acceptance

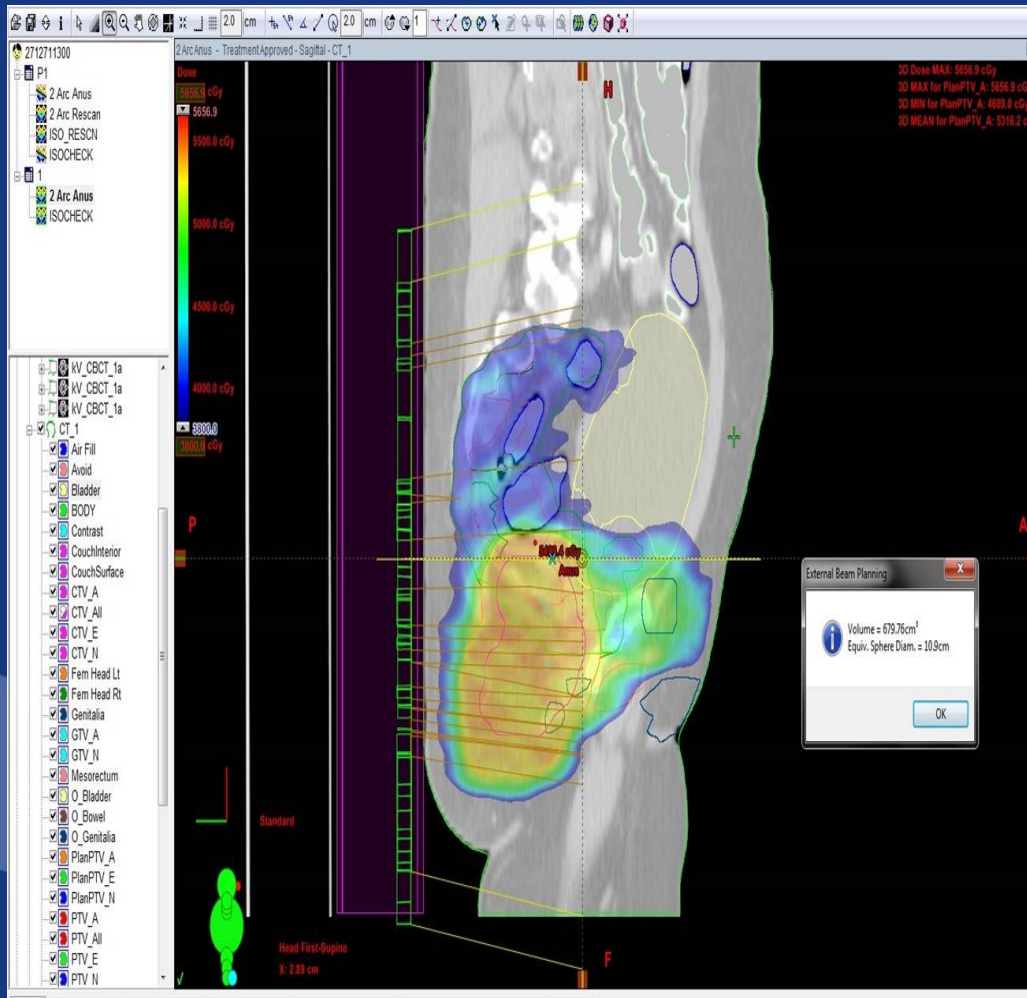
What have we learned?

- Significant proportion of this group have ongoing difficult symptoms after their curative treatment
- Observed similar trends to other studies highlighting the consistency in the issues identified that affect quality of life
- Clinically relevant – supporting recovery

New Follow-up Pathway/Approach



Intensity Modulated Radiation Therapy (IMRT) & Volumetric Modulated Arc Radiotherapy (VMAT)



- Precision radiation techniques now standard in UK
- Research focus on dose escalation in high risk groups and de-escalation in lower-risk groups being addressed in current

PLATO trial (Personalising Anal Cancer Radiotherapy Dose)

- Key outcome – morbidity using PRO measures

Precision Radiotherapy (IMRT/VMAT)

- Royal College of Radiology UK Audit - preliminary data demographic and quality of life data in 250 people suggests a reduction in acute effects.
- Now gathering outcome data at 2-3 years including treatment breaks, survival and QoL (EORTC tools) – no data available yet
- Since January 2015 – 2018 100 people have been treated VMAT at Edinburgh Cancer Centre

3rd Study – Replicating the evaluation study in the VMAT group

- 41/56 consented
- EORTC QoL and MSKCC PROMs
- Data collection completed
- Currently reviewing data but preliminary analysis would suggest:
 - Ongoing bowel difficulties in a sub-set at medium time interval of 2 years
 - While direct comparisons cannot be made, overall trend appears better bowel function in VMAT group, improved global health status and better emotional, role and social function

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Thank you.....