Radiotherapy issues in older adults with rectal cancer

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Rutten et al Lancet Oncology 2008

<table>
<thead>
<tr>
<th>Age</th>
<th>85+ patients</th>
<th>30 day Mortality</th>
<th>6 month mortality</th>
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</thead>
<tbody>
<tr>
<td>Dutch TME Study</td>
<td>11.8%</td>
<td>17.6%</td>
<td></td>
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<tr>
<td>Dutch Population stats</td>
<td>7.6%</td>
<td>28.9%</td>
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Neoadjuvant radiotherapy trials – age distribution

Pre-op CRT trials
- EORTC 22921
- FFCD 9203

SCPRT trials
- Dutch TME
- CR07

Population data

MDT Data for colorectal cancer

- Weekly meeting local hospital catchment area approx 300,000
- We discuss 8-14 > 80 years old each week
- Approx 20 per year > 80 years old rectal
- Surgeons know their mortality data is captured in National Statistics and shortly will be on-line

Preoperative Radiotherapy

- Reduces Local recurrence
- No impact on Disease free Survival
- No impact on Overall Survival
- Acute Toxicity
- Compliance
- Late Toxicity
- Impacts on function

NBOCAP: number of patients undergoing surgery

75-84 years 1072/2299 = 47%
85+ years 177/838 = 21%
undergoing major surgery for rectal cancer
2 options for preoperative radiotherapy

- **CRT with 5FU 45 Gy / 25 fractions**
- **SCPRT 25 Gy / 5 fractions**

Swedish Rectal Cancer Registry

- Older patients ≥ 75 years received preoperative radiotherapy less often than younger patients regardless of surgical technique –
  - overall 34% versus 67% \( P < 0.001 \) (Jung 2009).
  
  Jung B et al., BMC Cancer 2009;9:68

If we are going to treat older patients the same

- We need protocols for the elderly
- We need trials specifically for the elderly
- We need trials for the elderly with and without co-morbidity
- We need information for the elderly in a format they want
- We need to bring them into the decision making process

Swedish population data: Jung B et al BMC Cancer 2009

If we are going to individualize/tailor treatment to individual

- We need care of the elderly/geriatrician input
- We need MDTS assessment
- We need trials specifically for the elderly
- We need trials for the elderly with and without co-morbidity
- We need to bring them into the decision making process

Patient Preferences: ranking advantages/disadvantages

- We know that patients do make preferences
- We need to know whether preferences of older adults are different
- We need to know how older people make preferences
- Fear of dying versus fear of toxicity
- Older adults may be more compliant to views of surgeons/oncologists
What is our aim?

- To maintain health and function in older adult patients with rectal cancer
- To optimize chances of coping with treatment (whether surgery/RT/chemo)

Patients living longer, but not necessarily fitter

We oncologists believe we take into account
- Age
- Co-morbidity
- Mobility
- Social isolation
- What support daughter/spouse/neighbours
- Consequences of treatment
But not doing formal assessments – we should

Late Effects of pelvic radiation in the elderly

- Faecal incontinence already a problem
- Urinary problems in men already
- More insufficiency fractures (osteoporosis)
- Impotence may be less relevant
- Cardiac problems
- Poor mobility means more fibrosis
- ? Can ignore 2nd malignancy

Elderly patients with CRC are under treated with substandard treatments.

Confirmed by several population-based studies
Faivre-Finn 2000,
Ayanian 2003,
Endreseth 2006,
Chang 2007,
Jung 2009,
Gagliardi 2010

Population studies do not tell you why?

- Are older patients more/less compliant with advice
- No data on co-morbidity
- Did the patient refuse?
- Did their family intervene?
- Was it too far to travel for the radiotherapy?
- Did surgeon feel they were unfit/too high risk?
- Did Oncologists have concerns re toxicity?

Practical Considerations

- Family support - can they/will they get to centre?
- Phone - ?
- Hearing/vision
- Mobility - can they maintain keeping still?
- Can they cope with MRI?
- Can they lie prone for belly board?
- Can they lie on their side for brachytherapy
- Less compliant with medications
- Can they comply/overcomply with capecitabine
We don’t really know

- How exactly do age related characteristics influence our clinical decisions?
- How might this vary between different countries in UK versus Europe versus USA?
- How do radiation oncologists assess the benefits and toxicities of radiotherapy?

Is radiotherapy/chemoradiation an alternative to surgery?
Examples of pre- and post-BT endoscopic views

EBRT/Brachytherapy as alternative to TME: Te Vuong data
- With median follow-up 14 months
- Local control 76% (25 patients)

Toxicity
- 17% rectal bleeding G3
- 7% rectal stenosis
- 2% (1 patient) rectovaginal fistula

Symptom Complete Response Rate

Median Survival

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<tr>
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<th>Months</th>
<th>Range</th>
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<tr>
<td>Radical</td>
<td>18.5</td>
<td>2-119 months</td>
</tr>
<tr>
<td>Palliative</td>
<td>6</td>
<td>1w-37 months</td>
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Papillon Contact RT for small lesions

- Low energy X-Rays (limited penetration)
- High dose (30Gy)
- Quick
- Not so easy to administer
- Small volume (30mm)
- Fractionated – several treatments

Contact therapy Before and after

Conclusions 1

- Elderly will present an increasing problem
- We need to change our practice
- We need evidence to change
- Important to incorporate some formal comprehensive geriatric assessment principles into decision making
- More data is definitely needed to help inform decision making

Conclusions 2

- HDR-Brachytherapy (contact therapy for small tumours) promising techniques esp for elderly
- Toxicity not negligible – little data on long term RT effects
- No long-term functional outcome
- Short term reasonable local control
- Time for a trial

Thank you