



## Service Priorities and Programmes Electronic Presentations

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### **Filling the Service Gap for Rectal Cancer Patients who are Medically Unfit or Refuse Surgery: Our Early Experience on External Beam Radiotherapy (EBRT) plus High Dose Rate Brachytherapy (HDRBT)**

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#### **Introduction**

TME rectal surgery is the gold standard for definitive treatment of rectal cancer. However, with the aging population, more patients diagnosed of rectal cancer are medically unfit or refuse surgery. Results of EBRT alone in this group are often unsatisfactory and short lasting. Recent publications support EBRT plus HDRBT to achieve dose escalation to improve outcome.

#### **Objectives**

To report on treatment outcome and safety on EBRT plus HDRBT in rectal cancer patients who are medically unfit or refuse surgery.

#### **Methodology**

13 consecutive patients who were treated with EBRT and HDRBT during Jan-2015 to Sep-2016 were analysed. EBRT regime was at the discretion of treating oncologist (1.8Gy x 28, n=2; 5Gy x 5, n=5; 3Gy x 13, n=6), followed by a 8 week interval and then HDRBT boost. The starting HDRBT dose was 10Gy/Fr, escalated to a maximum of 3x10Gy/Fr weekly treatment if acute toxicities were tolerated. Acute toxicities were prospectively recorded, tumour response was assessed by regular endoscopy and magnetic resonance imaging (MRI).

#### **Result**

At the time of analysis 9 patients were alive and median follow-up time was 16 months (range: 5.7–24 months). Indications for EBRT plus HDRBT were medical inoperability (8 patients) and refusal of surgery (5 patients). Median age 79 years (range: 70–88), ECOG 2/3 (n=7/5), Charlson co-morbidity score  $\leq$  3 in 7 patients. On pre-treatment MRI, 12 patients were of cT3 stage and 1 patient was of cT4 stage. 7 patients had node positive disease. Mesorectal fascia was threatened in 8 patients. Planned dose of HDRBT :10Gy x 1 / 10Gy x 2/ 10Gy x 3 (n=6/3/4). 9 patients (69%) reported  $\leq$  acute grade 2 proctitis, only one patient developed grade 3 toxicity (7.6%).

Tumour response was observed in 11 patients (84.6%). 92.3% (12 of 13) of patients reported an improvement in symptoms. The actuarial local control rate at 1 year and 2 years was 90% and 63% respectively. No patients received  $\geq$  2 fractions HDRBT boost developed local progression at the time of analysis.

EBRT plus HDRBT is safe and effective compared with historical data of EBRT alone, it may fill the service gap in rectal cancer patients who are medically unfit or refuse surgery