

Meeting abstract

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## Neoadjuvant chemoradiation for rectal cancer in patients aged 75 years or older

Raffaele Lombardi\*<sup>1</sup>, Dajana Cuicchi<sup>1</sup>, Carmine Pinto<sup>2</sup>, Francesca Di Fabio<sup>2</sup>, Bruno Iacopino<sup>2</sup> and Bruno Cola<sup>1</sup>

Address: <sup>1</sup>Department of General Surgery and Organ Transplantation, S. Orsola-Malpighi University Hospital, Bologna, 40138, Italy and

<sup>2</sup>Department of Hematology, Oncology and Laboratory Medicine, S. Orsola-Malpighi University Hospital, Bologna, 40138, Italy

\* Corresponding author

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### Background

Preoperative chemoradiotherapy (CRT) has been widely adopted as the standard of care for locally advanced rectal cancer in most western countries. However there has been a general exclusion of the elderly patients from neoadjuvant trials often due to concerns over their tolerance of surgery and/or (chemo)radiotherapy. Our aim was to compare the compliance to preoperative CRT of rectal cancer patients aged  $\geq 75$  years and younger.

### Materials and methods

From March 2002 to October 2008, 132 patients underwent preoperative long-course radiotherapy (5040 cGy in 28 fractions) with concurrent fluorouracil (FU)-based chemotherapy for locally advanced (T3–4 and/or N+) or metastatic (resectable synchronous liver only or lung only metastases) rectal cancer at Bologna University Hospital. Chemotherapy was delivered according to one of the following regimens: 1) continuous infusion i.v. of 5-FU alone (225 mg/m<sup>2</sup>/day); 2) continuous infusion i.v. of 5-FU (225 mg/m<sup>2</sup>/day) plus a weekly bolus of oxaliplatin 60 mg/m<sup>2</sup> for 6 times and 3) oral capecitabine (1300 mg/m<sup>2</sup>/day). Out of 132 patients, 17 were characterised by aged 75 or older, Karnofsky performance scale  $\geq 70$ , absence of significant comorbidities and comprise the elderly group. The Fisher's exact test was used to compare proportions and the Mann-Whitney U test to compare continuous variables.

### Results

Planned radiation therapy was completely delivered in 15 of 17 patients (88 percent) of the older age group and in 106 of 115 (92 percent) of the younger age group ( $p > 0.05$ ). In only one patient (aged 74 years) radiotherapy was early (1800 cGy) interrupted because of bowel obstruction. The full protocol dose of chemotherapy was delivered in 10 (59%) and 94 (82%) patients of older and younger age group respectively ( $p = 0.0514$ ). The main causes of chemotherapeutic schedule violation in the older age group were GR3/4 diarrhoea (2 patients), GR3 neutropenia (2 patients), acute neurotoxicity (1 patient), heart complication (1 patient) and Jacksonian epilepsy (1 patient). However none of these seven patients received less than eighty percent of total dose planned. All older patients underwent surgical treatment seven to eight weeks after CRT as follow: low anterior resection (10 patients), abdominoperineal resection (5 patients) and transanal excision (2 patients).

### Conclusion

Our results are consistent with the concept that age should not be the only deciding factor in the treatment of advanced rectal cancer. As International Society of Geriatric Oncology recommendations, patients should receive the most intensive and appropriate treatment thought to be safe and effective according to their biological age and comorbidities.