ABSTRACT

Bladder cancer is a disease of the elderly with a median age at diagnosis of 70 years and radical cystectomy still represents the gold standard treatment option for muscle invasive bladder cancer. Nevertheless, age, comorbidities and a previous history of radiation therapy, could represent limiting factors to this surgery.

The aim of the present study is

1. to assess the complication rate of radical cystectomy carried out after previous radiotherapy for abdominal-pelvic malignances *(session 1)*

2. to evaluate the impact of age and comborbidities on complication rate and perioperative mortality in a large cohort of elderly patients treated with radical cystectomy *(session 2)*.

Session 1.

Materials and Methods. Patient $\geq$ 75 years old treated with RC between 1990 and 2015 for bladder cancer and with available information on comorbidities, pre surgical status and complications (according to Clavien scale) were entered in the database. Patients were divided into 3 groups according to age at cystectomy: between 75 and 79 yrs (gr1), between 79 and 84 (gr2), $\geq$85 (gr3). Differences between the 3 groups were assessed for baseline, pre surgical, surgical and post surgical characteristics using Chi-Square and Wilcoxon-Mann-Whitney test for continuous categorical respectively.

Results. Two thousand and six patients (median follow-up 43months) underwent RC, 292 (14.6%) had≥85yrs. Baseline patients' characteristics are reported in table1. ECOG was significantly lower in gr 3 than in gr2 and 1 (77%, 70% and 68% respectively, p=0.008). Patients $\geq$85yrs had more preoperative hydronephrosis, hematuria and extravesical disease, and underwent more UCS diversion (22%)compared to gr 1 and 2. Globally, 922 (45.9%) experienced a complication. Among patients with complication 43% had a Clavien≥3 and 1.9% had a Clavien V. The overall complication rate was similar in the 3 groups, while Clavien≥3 decreased in older patients (46%, 42% and 32% respectively, p=0.024). Perioperative mortality was 2.9% at 1 month and 5.3% at 3 months after RC. Overall mortality was higher in $\geq$85yrs (69.5%, p=0.0082), but no differences between the 3groups were seen among cancer specific (55%, 54%, 49% respectively, p=0.363) and treatment related mortality (4.6%, 4%and 6.8% respectively, p=0.383).

Conclusions. Age did not affect cancer specific survival in elderly patients treated by RC. The lack of significant differences in terms of overall complication rate and the reduction of high grade complication in >85 years is probably related to the type of diversion and selection of the population.

Session 2

Materials and Methods. This is a multicenter retrospective study including patients from 19 different centers. Patient $\geq$ 75 years old treated with RC for bladder cancer between 1990 and 2015 and with available information on comorbidities, pre surgical status and complications (according to Clavien scale) were entered in the database. The following end points were assessed: complication rate, overall mortality (OM) and cancer specific mortality (CSM).

Results. Two thousand and six patients with a median follow-up 43months were entered in the database, 292 (14.6%) had≥85yrs. Globally, 922 (46 %) experienced a complication and in the 39.7% of the cases occurred within the first month after surgery. Among patients with complication 381 (41.2%) had a Clavien≥3 and 36 (3.9%) had a Clavien V. 528 (57%) patients had more than 1 complication. At multivariate analysis patients with ASA score <3 (OR 0.403, p<0.001), a localized disease (<pT3) (OR 0.278, p<0.001) and low comorbidity rate (Charlson<3) (OR 0.763, p<0.001) had a lower risk of both OM and CSM. Age did not affect both outcomes in multivariate.

Conclusion. Age did not affect cancer specific survival in elderly patients treated by RC and should not be considered as an independent limiting factor to perform radical cystectomy.