strategies is crucial in the surgical decision-making process and to optimise treatment outcomes. Recently, there is growing interest in the association of preoparetive inflammation and immuno-nutritional serum markers with postsurgical complications and survival outcomes. The aim of this study was to investigate and compare the ability of preoperative Controlling Nutritional Status (CONUT), Prognostic Nutritional Index (PNI), neutrophil to lymphocyte ratio (NLR), platlet to lymphocyte ratio (PLR), lymphocyte to monocyte ratio (LMR), systemic immune-inflammation index (SII), albumin, fibrinogen and PCR to predict perioperative and postoperative morbidity and mortality after RC.

Materials and methods: We retrospectively evaluated 164 patients who underwent open RC for muscle-invasive bladder cancer (MIBC) at our Institute between December 2004 and June 2018. We excluded those patients who received neoadjuvant therapy and patients in whom data were incomplete. Covariates were analyzed to determine associations with complication rates (according to the Clavien-Dindo system), mean hospitalization length, 30-days readmission rates and 90-days mortality. A multivariable binomial logistic regression determined associations with postsurgical outcomes taking into account age, sex, urinary diversion, pT stage and each serum marker, or American Society of Anesthesiologists (ASA) classification and Charlson Comorbity Index (CCI) categorization.

Results: Cut-off values to discriminate threshold of these biomarkers were determined calculating the ROC curve and the maximum Youden index. We included 164 patients underwent RC for MIBC. The mean age at surgery was 72.1 years (range, 46–88) and the majority of urinary diversions were ileal conduit (78.1%). Overall, 44(26.8%) patients experienced a major complication (Clavien grade ≥ 3) and there were 9(5.5%) deaths within 3 months of surgery. ASA, CONUT, NLR, PLR, SII and PCR showed statistically significant differences in distribution of complications (all $p < 0.05$). There were no differences in mean hospitalization length while CONUT, PNI, fibrinogen, PCR, SII and CCI were statistically associated with 30-days readmission. Fibrinogen was the only serum marker associated with 90-days mortality ($p = 0.01$). Multivariable binomial logistic regression analysys confirmed the association of CONUT, SII, ASA, NLR, PCR and fibrinogen with surgical complications (all $p < 0.05$).

Discussion: Preoperative inflammation and immuno-nutritional serum markers based on standard laboratory measurements may be simple and inexpensive potentially effective risk-assessment tools to predict outcomes after RC. Further investigations should be necessary to confirm these results.

SC77 Predictors of undetectable disease after radical cystectomy: Results from a single, large single-institution series

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Aim of the study: Radical cystectomy (RC) represents the gold standard of treatment for muscle-invasive or high risk recurrent superficial bladder cancer (BCa). Complete absence of tumor at final patology (pT0) after RC is a documented occurrence in the literature and is associated with better survival figures compared to patients with residual disease. We assessed potential predictors of pT0 at RC in a large single-institution series.

Materials and methods: We evaluated 1252 patients treated with RC after BCa diagnosis between 2000 and 2018. All patients included in the study had complete clinical data available, including data on previous transurethral resection (TUR).. Descriptive statistics showed the differences in clinical features of patients who achieved pT0 status after RC. Univariable and multivariable logistic regression analyses tested the association between pre-operative variables and pT0 status. Moreover, the relationship between modifiable risk factors the risk of pT0 status was explored using multivariable function Lowess.

Results: Median patient age did not differ among patients who achieved pT0 status vs. patients with residual tumor (69 vs. 69.9 yrs, $p = 0.3$). The proportion of patients diagnosed with muscle-invasive bladder cancer at TUR was significantly lower among patients who achieved pT0 status at RC (67.4% vs. 76.6%; $p < 0.01$). However, the presence of associated carcinoma in situ (CIS) at TUR was similar among the two groups (16.8% vs. 19.2%; $p = 0.5$). Conversely, the use of neoadjuvant systemic therapy was significantly higher among patients who achieved T0 status (17.4% vs. 8.5%; $p < 0.001$). In multivariable logistic regression analyses, the presence of MIBC at TUR (OR: 0.52; 95% CI: 0.37–0.81; $p < 0.01$), the presence of associated CIS (OR: 0.59; 95% CI: 0.35–0.96; $p = 0.037$) and the use of neoadjuvant systemic therapy (OR: 2.66; 95% CI: 1.64–4.24; $p < 0.001$) emerged as independent predictors of pT0 status at RC. An interaction test showed no associated between preoperative risk of pT0 status and the use of neoadjuvant therapy, showing the benefit of neoadjuvant systemic therapy was consistent regardless of preoperative risk of pT0 disease.

Discussion: We showed predictors of complete absence of tumor at final pathology after RC in a large single-institution series of individuals treated at a single European tertiary care center. Among modifiable risk factors, the use of neoadjuvant therapy was consistently associated with a significant increase in the probability of T0 disease after RC. Promotion of better adherence to international guidelines is warranted in order to improve BCa outcomes.

SC78 Survival outcomes according to salvage treatments for distant bladder cancer recurrences after radical cystectomy

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Aim of the study: The 5-year bladder cancer recurrence rate after radical cystectomy (RC) ranges 15%–70%; around 70% of these patients are diagnosed with distant recurrence (DR). Cisplatin-based chemotherapy is currently the standard treatment for DR, whilst radiotherapy and surgery have marginal roles. However, salvage treatments are rarely curative. The aims of the present study are: to describe patterns of distant recurrences, to identify the most effective salvage treatments and any predictors of CSS and OS.

Materials and methods: Among 3700 cM0 patients who underwent RC in a tertiary referral center between 1980–2017, we identified 535 patients who experienced DR during follow-up. Exclusion criteria were: incomplete demographic and clinical data; non-urothelial histology at RC; rare recurrence sites. DR were defined as recurrences in extrapelvic nodes, liver, other abdominal organs, lungs or bones. Descriptive statistics were used to show baseline demographic and clinical data. Multivariable Cox regression analysis was used to identify any predictors of CSS and OS.

Results: 285 (53.3%) patients had non organ confined disease; 149 (27.9%) had nodal involvement at RC. Median time to recurrence was 10.4 (5.3–23.1) months; median follow-up time was 20.5 (10.5–42.2) months. All-cause death and cancer-specific death rates were 94% (503 pts) and 85% (454). Most common sites of DR were multiple sites (209, 39%) and distant nodes (109, 20.4%). 45% of patients received chemotherapy, 20% radiation, 5.3% surgery+chemotherapy as salvage treatments. At multivariable Cox regression analysis, higher age at recurrence (OR 1.01, $p = 0.03$), hepatic recurrences (OR 2.0, $p < 0.0001$) and multiple recurrences (OR 1.7, $p < 0.0001$) were associated to shorter CSS. All type of salvage treatments were associated with longer CSS ($p < 0.0001$ in every case), but surgery+chemotherapy showed the