

Xpert BC Monitor increased from 51.5% in LG to 85% in HG one. Specificity was 80.7% (125/177) for Bladder Epicheck, 70.6% (26/40) for Xpert BC Monitor and 98.3% (174/177) for voided urinary cytology.

**Discussion:** Xpert BC Monitor performs better in sensitivity, while the Bladder Epicheck shows higher specificity. Both tests did not reach the high specificity of cytology. Xpert BC Monitor is easy and fast to perform while the Bladder Epicheck requires dedicated technicians and is more time consuming. Both tests are, however, of interest as an additional tool in the follow up of patients with NMIBC, by reducing the number of cystoscopies.

## SC74

### Xpert bladder cancer monitor in the follow up of patients affected by non muscle invasive bladder cancer (NMIBC): An update

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**Aim of the study:** Bladder cancer (BC) has one of the highest recurrence rates, ranging from 50% to 70% within 5 years of the first treatment and requiring a lifelong follow up with cystoscopy and cytology, limited by its low sensitivity in low grade tumours. The Xpert BC Monitor kit is a new urinary marker test based on the evaluation of 5 targets mRNAs (ABL1, CRH, IGF2, UPK1B and ANXA10), over-expressed in patients with BC. The aim of our study was to further evaluate the diagnostic accuracy of the Xpert BC Monitor test in the follow up of patients with history of NMIBC and to compare it with urinary cytology, cystoscopy and/or histology.

**Materials and methods:** 517 patients under follow up for NMIBC were included in this prospective study. Samples were analyzed with the Xpert BC Monitor kit and urinary cytology. Subsequently to urine collection, the patients underwent cystoscopy and if positive a TUR-B. Cytologies were evaluated according to the Paris System of reporting cytology. For statistical analysis, negative for high grade urothelial cancer (UC) and atypical urothelial cells were grouped as negative, suspicious for high grade UC, high grade UC and low grade urothelial neoplasia as positive. The Xpert BC Monitor test was reported by the software as negative or positive (cut-off total LDA = 0.5). Sensitivity, specificity, PPV and NPV of Xpert BC Monitor and cytology were calculated using cystoscopy or histology results, if available, as gold standard.

**Results:** Median age of the patients was 73 years (range 28–95). Two patients had to be excluded due to a not diagnostic cytology and Xpert BC Monitor. Of the remaining 517 patients, 128 had tumour recurrence (95 LG (74.2%), 33 HG (25.8%)). Overall sensitivity was 21% (27/128) for cytology, 57% (73/128) for Xpert BC Monitor and 59.3% (76/128) for the two tests combined. The sensitivity of cytology increased from 5.3% (5/95) in low grade (LG) to 66.6% (22/33) in high grade (HG) tumours whereas, for the Xpert BC Monitor, the sensitivity was 48.4% (46/95) in LG and 81.8% (27/33) in HG tumours. Combined cytology and Xpert<sup>®</sup> BC Monitor yielded an overall sensitivity of 49.5% (18/60) for LG and 87.8% (16/17) for HG tumours. Overall specificity was 98.2% for cytology and 74.3% for Xpert<sup>®</sup> BC. PPV for cytology was 79.4% and for Xpert BC Monitor 42.2% while NPV was similar for the 2 tests: 79% for cytology versus 84% for Xpert BC Monitor.

**Discussion:** Our data confirm that the sensitivity of the Xpert BC Monitor Test is significantly higher than for cytology as previously reported. In combination with cytology the test improves early diagnosis of tumour recurrence and the number of cystoscopies can be reduced in low risk patients.

## SC75

### Impact of antiplatelet or anticoagulation therapy in patients newly diagnosed bladder cancer: Preliminary results of a independent analysis of the Identify Study Italian cohort

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**Aim of the study:** The most common symptom of bladder cancer (BCa) is haematuria. Although macroscopic haematuria has long been assumed to be the earliest and most frequent symptom of BCa, its effect on current urologic practice deserves better investigation because of some novel epidemiologic and clinical findings. Antiplatelet and anticoagulant therapy (AAT) represents one of the most widely used treatments in medical practice. The aim of this study is to evaluate whether patients taking AAT might experience haematuria at an earlier stage or grade of BCa in the setting of IDENTIFY study: the largest ever prospective, international, multi-centre study of patients referred to secondary care, with or without haematuria, for the investigation of suspected urinary tract cancer.

**Materials and methods:** Data were collected prospectively from five Italian tertiary referral centers including 618 consecutive patients undergoing cystoscopy because of urothelial cancer suspicion and with no history of previous urological tumours, from December 2017 to May 2018. For the purpose of this sub-analysis patients with subsequent diagnosis of BCa were divided into two groups: patients receiving antiplatelet or anticoagulant therapy (AAT) and patients who are not receiving it at the moment of enrollment.

**Results:** We included 109 patients with complete follow up and histopathology. 34 (31.2%) of patients took AAT at the time of enrollment. The mean age of the population was 72.3 years ( $\pm 11.4$ , SD) and the majority of patients were males (88.9%). Distribution of data in BMI, smoke habits, family history of urological cancer, tumour focality, tumor size, tumour location, final pT stage, grading according to WHO and histologic variants of BCa was homogenous (all  $p > 0.05$ ). Data regarding mean age at recruitment ( $p < 0.0001$ ), gender ( $p = 0.02$ ), type of haematuria (visible or not,  $p < 0.0001$ ) were statistically significantly different between the two populations. A multivariable binomial logistic regression analysis adjusted for age, sex, tumour size, tumour focality, active smoke habit and AAT confirmed the absence of statistically significant differences in predict high grade or stage BCa at final pathology report ( $p = 0.43$ ).

**Discussion:** In this preliminary independent analysis of the Italian cohort of the IDENTIFY study, patients without history of urological malignancies undergoing cystoscopy because of suspicious urothelial cancer do not seem to experience haematuria significantly earlier (regarding pT stage and or grading) if using AAT. Whilst IDENTIFY definitive results are awaited to confirm our findings, investigation for suspect urothelial cancers should not differ from the standard in these patients.

## SC76

### Utility of serum markers in the assessment of perioperative and postoperative morbidity and mortality after radical cystectomy

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**Aim of the study:** Despite significant improvements in surgical techniques, radical cystectomy (RC) remains a highly morbid operation. The ability to predict complications and create prevention