

characteristics mentioned above. *Results:* Among our 60 patients, 58 had organ confined disease (8 pT2a: 13%, 6 pT2b:10 %, 41 pT2c: 68%) while 2 patients had extracapsular invasion (pT3a: 3%), though no seminal vesicle involvement (pT3b) was detected in this cohort. In 50 cases (83%) the resection margins were free from cancer (R0), while 10 cases (17%) showed positive margins (R1). The pathological Gs was 6 in 18 cases (30%), 3+4 in 27 (45%), 4+3 in 14 (23%) and 8-10 in 1 (2%). According to the risk based analysis, 45 patients (75%) were at low risk of aggressive disease, while the percentage of intermediate risk patients was about 23%, and only 1 patient (2%) harboured a high risk prostate cancer. *Conclusion:* According to our study, the inclusion criteria of Prostate Cancer Research International Active Surveillance (P.R.I.A.S.) have high accuracy in the prediction of organ confined and low-intermediate risk prostate cancer. Our results seem to be consistently better than those of the actual literature, maybe thanks to the anatomopathological review performed by a single experienced uropathologist, which allowed us to exclude 53 patients who would have compromised the accuracy of our results. Thus, according to our experience, the actual Active Surveillance parameters can be safely adopted, only if the review is performed by a single uropathologist of proven experience.

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TRENDS IN PARTIAL NEPHRECTOMY USE IN ITALY: DATA FROM PIEDMONT REGION IN THE LAST DECADE

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Introduction: Recent studies have shown that partial nephrectomy (PN) has equivalent oncologic outcomes with radical nephrectomy (RN) for localized renal tumors. The most recent international guidelines for renal cell carcinoma (RCC) recommend the use of nephron sparing surgery (NSS) for renal lesions up to 7 cm in size whenever technically feasible. Despite this, PN remains underused in North America. Aim of this study was to evaluate trends in PN use during the last decade in a north-western Italian region. *Patients and Methods:* The regional archives of hospital discharge records in Piedmont region from January 2000 to December 2010 were retrospectively analysed. All procedures recorded with the ICD-9 codes 55.3, 55.4 (PN) and 55.5 (RN) performed for a primary diagnosis of renal tumor (189.0) were included in the analysis (n=6180). The surgeries were performed in 43 different urological institutions, that were

stratified according to academic status and hospital nephrectomy volume (high >300, intermediate 100-300, low <100 nephrectomies in the study period). Trends in the use of PN were assessed overall and according to institution type. *Results:* The overall number of surgical procedures for renal tumors performed in Piedmont region increased significantly from 2000 to 2010 (+27%). RN is the preferred surgical treatment, but an increasing use of PN was observed over the study period. This trend is more significant in centres with high renal surgical volume (+ 19.9%) and in non academic centres (+13.7%). *Discussion and Conclusion:* PN is increasingly performed in the last decade in Piedmont region. The most significant increase in the indications to NSS was observed in institutions with high renal surgical volume. However, PN remains relatively underused and strategies to enhance conservative treatments of renal tumors should be implemented.

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FLUORESCENT CYSTOSCOPY WITH HEXAMINOLEVULINATE: DIAGNOSTIC ACCURACY FOR NON MUSCLE INVASIVE BLADDER CANCER

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Introduction: The sensitivity of white light cystoscopy (WLC) can be improved especially for the detection of flat urothelial neoplasms. Fluorescent or blue light cystoscopy (BLC) has the potential to overcome the limitations of WLC. Aim of this study was to compare the diagnostic accuracy of WLC and BLC in the diagnosis of urothelial cancer and to identify the conditions where BLC can provide the highest diagnostic advantage over WLC. *Patients and Methods:* 71 patients with a suspicious primary or recurrent bladder tumor were enrolled in the study. Patients who had intravesical instillations in the 3 months before the procedure were not eligible. After intravesical instillation of Hexaminolevulinat 85 mg one hour before the procedure, the patients underwent WLC followed by BLC. All observed lesions were reported in a diagram, biopsied or resected. Detection rate and false detection rate of the two techniques were compared. Data were stratified according to pathology of bladder lesions and bladder site where the lesions were observed. A subset analysis was also performed to assess the diagnostic accuracy of WLC and BLC in patients who had (n=36) or had not (n=35) undergone previous intravesical treatments to prevent recurrence and progression. *Results:* Overall 270 bladder

lesions were detected (102 with BLC, 7 with WLC, 161 with both techniques). At pathology 236 lesions were malignant, while 34 were benign. The detection rate was 62.2% for WLC (147/236) and 98.3% for BLC (232/236). The highest diagnostic advantage for BLC was observed for the diagnosis of carcinoma *in situ* and for lesions located at the bladder dome. The false detection rate was 12.5% for WLC (21/168) and 11.4% for BLC (30/263). Overall, 32/71 patients (45.1%) had a diagnostic advantage with BLC (diagnosis of at least one Cis, dysplastic or papillary lesion that was missed at WLC). The subset analysis showed that the detection rate of BLC is not decreased in patients who have undergone previous endovesical treatment (98.1% vs. 97.8%), as well as the false detection rate is not increased (11.6% vs. 11.4%). *Discussion and Conclusion:* BLC is a promising technique that has a significantly higher detection rate than WLC. The highest diagnostic advantage with BLC can be obtained for the diagnosis of Cis and of lesions located at the bladder dome. The detection rate of BLC is not decreased in patients who underwent previous endovesical treatments when the last instillation is not performed in the 3 months before the procedure.

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PROSTATE SPECIFIC ANTIGEN (PSA) USE AND INCIDENCE OF PROSTATE CANCER (PC) AMONG ELDERLY MEN IN NORTH-EAST ITALY: A POPULATION-BASED EVALUATION STUDY

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Purpose: The PSA blood test has changed the epidemiology of PC, creating a dramatic rise in its incidence and helping to shift the stage of disease to much earlier and potentially more curable one. PSA testing remains, however, a source of uncertainties since periodic testing may increase the risk of treating many men for screen-detected PC who would not have experienced ill effects if PC had been left undetected. The risk of over diagnosis and over treatment associated with PSA is particularly significant among elderly men, among whom it is questioned whether life expectancy is significantly reduced after PC diagnosis. The study aim was to assess, from 1998 thru 2009, PSA use and PC incidence rates in elderly men (≥ 70 years) in

the Friuli Venezia Giulia region (FVG), northeastern Italy. *Methods:* PC cases were identified through the population-based Cancer Registry that collects all cancer cases occurring since 1995 in resident people. Individual history of PSA testing was extracted from the regional digital health archive that provides the identification of men tested for PSA and the date of testing. Joinpoint regression analysis was used to identify significant changes over time in log-linear slopes. The annual percentage change (APC) was computed by means of generalised linear models. *Results:* From 1998 to 2007, 10377 incident PC cases have been identified, of which 56.5% were among elderly. The crude incidence rate of PC in elderly men increased from 824.2/100.000 in 1998 to 875.4 in 2007, with an APC of +6.18 (95%CI 2.01-3.16). 38.826 men (out of the approximately 70300 elderly men residing in FVG) were tested for PSA in 2009, with a total number of 58147 tests performed. Between 1998 and 2009, the percentage of elderly men aged 70-79 who underwent PSA test increased substantially (APC=13.02%), with a change in slope in 2002. Among elderly men aged 80 years or older, the APC increase was 12.80%, and 2003 the year with the change in slope. Approximately 30% of elderly men who underwent PSA were tested more than once. On average, there were 1.06 cases of newly diagnosed PC every 100 PSA tests. The number of elderly men tested for PSA who underwent ecographic examination and/or biopsy strongly declined -from 900 to 400 ecographic exams for every 10000 tested men; from 300 to 200 biopsy for every 10000 tested men. *Conclusion:* The increasing incidence of PC in FVG reflects the rising use of PSA testing also among elderly men, even for men aged 80 years or older. The huge number of PSA tests was inversely associated with the number of ecographic examinations or biopsies over the study period, indicating that PSA testing is widely used in asymptomatic elderly men.

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CONTRAST-ENHANCED ULTRASOUND FOR EVALUATION OF RCCS: IDENTIFICATION OF HIGH-RISK TUMORS THROUGH SIGNAL TIME/INTENSITY CURVES

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Aim: The aim of the study is to evaluate the efficacy of time/intensity curves (T/IS) for quantitative analysis of contrast kinetics during contrast-enhanced ultrasound (CEUS) in characterization of renal lesions. *Patients and Methods:* We