

(Figure 2) ($p < 0.001$). *Conclusion:* The SIB margin score is the first standardized reporting system to communicate RT during NSS. Our study proved the applicability of the model in a real-world clinical setting and provided robust histopathological validation of its utility.

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A WHOLE TOMATO-BASED DIETARY SUPPLEMENT TO COMPLEMENT THE OUTCOMES OF THE WCRF/AICR RECOMMENDATIONS

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Introduction: Despite differences in outcomes, due to heterogeneity in study designs, a wealth of clinical and experimental evidences underscore the beneficial effects of the consumption of lycopene-rich tomatoes on prostate functions (1). Such effect, which is maximally reached using cooked tomatoes, has been shown to be dose-dependent (2). Thus, development of tomato-processing methods aimed at optimally preserving the health-promoting activity of this fruit that is of major translational relevance. *Materials and Methods:* Using the transgenic adenocarcinoma of the mouse prostate (TRAMP) model, the effect of a diet enriched with processed whole tomato on animal survival, tumorigenesis and progression was investigated. *Results:* Tomato-enriched diet significantly increased overall survival, delayed progression from prostatic intraepithelial neoplasia to adenocarcinoma and decreased the incidence of poorly differentiated carcinoma. This was paralleled by an increase of plasma antioxidant capacity and a reduction of circulating pro-inflammatory and pro-angiogenic cytokines of known relevance in human prostate carcinogenesis. Based on these preclinical data, we have developed a dietary supplement containing a blend of *ad-hoc* processed whole tomato and olive vegetation water for human use, called Lycoprozen® (Italian Health Ministry, code 68843) (3). *Conclusion:* This new dietary supplement may help to maintain prostate health and can contribute to the beneficial effect of adherence to the WCRF/AICR recommendations, especially when proper life styles are adopted.

1 Raiola A, Rigano MM, Calafiore R, Frusciante L and Barone A: Enhancing the Health-Promoting Effects of Tomato Fruit for Biofortified Food. *Mediators Inflamm* 2014: 139873, 2014.

2 Er V, Lane JA, Martin RM, Emmett P, Gilbert R, Avery KN, Walsh E, Donovan JL, Neal DE, Hamdy FC and Jeffreys M: Adherence to dietary and lifestyle recommendations and prostate cancer risk in the prostate testing for cancer and treatment (ProtecT) trial. *Cancer Epidemiol Biomarkers Prev* 23: 2066-2077, 2014.

3 Tomato powder based composition. PCT, Publication No. WO/2015/044134 A1.

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LIMITS OF TRANSURETHRAL RESECTION IN DETECTING RARE HISTOLOGICAL VARIANTS WITHIN LARGE UROTHELIAL BLADDER TUMORS

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Introduction/Aim: Rare histotypes represent almost 10% of bladder tumors, although more often represented as small foci within large and invasive transitional cell tumors of the bladder (TCCB). It might be clinically relevant that rare histological variants remain unrecognized at transurethral resection (TURBT), since they could indicate more aggressive tumors, less responsive to systemic chemotherapy and unfit for "organ-sparing" management. We investigated the accuracy of TURBT to detect rare histological variants in patients-candidates to cystectomy for bladder cancer with clinical and radiological features of invasiveness. *Materials and Methods:* The clinical and pathologic data of 340 patients submitted to TURBT and/or cystectomy for bladder cancer, between January 2010 and July 2015, were reviewed. The presence of uncommon histotypes within urothelial bladder carcinoma has been assessed. The diagnosis of rare variants of bladder cancer was made according to WHO criteria. Standard hematoxylin-eosin stain was adopted and further immunohistochemistry was performed as follows: Micro-papillary carcinoma, MUC1, EMA, CK7, CK20; Squamous cell carcinoma, CK5/6, CK5/14; Adenocarcinoma, CK7, CK20, CEA, EMA; Small cell carcinoma, EMA, CAM5.2, synaptophysin, vimentin, chromogranin, neuro-specific enolase (NSE), CK7, c-kit and TTF1; Mesenchymal

tumors, keratin, EMA, vimentin and CEA and, sometimes, hCG. Additional immunohistochemistry was adopted when required to improve the pathological diagnosis. Candidate patients to cystectomy, for reason other than large bladder tumor with radiologic imaging suggestive of bladder wall infiltration, *i.e.* Tis, multiple and/or recurrent non muscle invasive and patients submitted to TURBT at other centers, were excluded. Inferential statistical analysis was performed. **Results:** Out of 340 patients, 35 (10.3%) showed rare histotypes of bladder cancer, *i.e.* in 30 cases (32%) out of 94 radical cystectomies and in 5 (2%) out of 246 TURBTs. The rare histotypes were distributed as follows: squamous carcinoma 11 (31%), sarcomatoid 8 (23%), undifferentiated 6 (17%), neuroendocrine 3 (9%), micropapillary 2 (6%), adenocarcinoma 1 (3%), mixed 4 (11%). TCCB with histological rare variants showed at cystectomy considerable size (average diameter=7.7×6.7 cm; range=4.5×5-11×9 cm), while 13 (43%) were pT4 category. In 13 patients (37%), the uncommon histotype was detected at the pre-operative TURBT, while, in 22 (63%), it was recognized only in the cystectomy specimen. Regarding the correlation between TURBT and re-TUR, rare histotypes were not identified at the first TURBT in 9 patients (26%) but found at re-TURBT in 4 patients (44%) and at cystectomy in 5 patients (56%) (Figure 1). Conversely, an atypical component diagnosed at first TURBT was not confirmed by a subsequent re-TUR in only 1 patient (3%). **Discussion:** Although the important prognostic role of rare histologic variants of bladder cancer is well-recognized, TURBT is not standardized in relation to tumor size. Unrecognized rare histotypes might have important therapeutic implications since they are probably less responsive to neoadjuvant chemotherapy or bladder-sparing approaches, thus benefiting early cystectomy. The inaccuracy of TUR in everyday clinical practice in detecting uncommon variants could be explained by the inadequacy of sampling of large tumors. The “pre-cystectomy” TUR is often considered a limited biopsy to confirm the tumor and to demonstrate the infiltration of the muscular layer. As a matter of fact, pathologists often do not analyze a sufficient amount of tissue to identify different histological components. Standardization of the TURBT strategy, including sampling of different areas of bulky tumors, could be of clinical value.

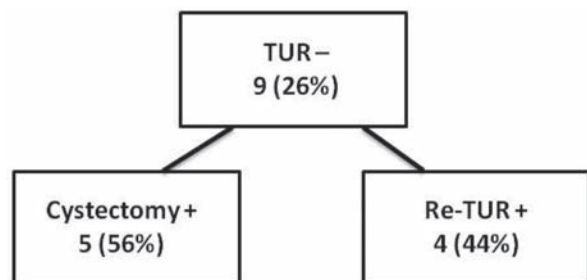


Figure 1. Flow chart showing the correlation between TURBT, re-TUR and cystectomy.

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PREDICTIVE FACTORS OF RESECTION
TECHNIQUES DURING PARTIAL NEPHRECTOMY
IN A COHORT OF “ENUCLEORESECTIVE”
CENTERS: INSIGHTS FROM THE SURFACE-
INTERMEDIATE-BASE (SIB) MARGIN SCORE
INTERNATIONAL CONSORTIUM**

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