Patients were classified in relation to BMI. Blood samples for the evaluation of adiponectin, leptin and MMP-3 were collected. A 12-core transrectal prostate biopsy was performed. Serum adiponectin, leptin and MMP-3 were measured using "Human Leptin Instant ELISA", "Human Adiponectin ELISA", "Human MMP-3 ELISA" kits, respectively. Statistical analysis was performed to relate the plasmatic levels of the above-mentioned biomarkers to the presence of Gleason patterns 4 and 5 at biopsy. *Results:* Fifty-six patients were enrolled. Median serum levels of leptin, adiponectin and MMP-3 were 0.829 ng/ml, 1.72 ng/ml and 1.767 ng/ml, respectively. In relation to BMI class, the plasmatic levels of leptin and MMP-3 were higher in obese (p=0.02) and in normal-weight patients (p=0.02), respectively. No statistically significant difference was detected in serum levels of leptin (p=0.18), adiponectin (p=0.68) and MMP-3 (p=0.49) between the 24 patients (42.8%) with diagnosis of PCa and the 30 patients (53.7%) with a negative biopsy. Comparing the levels of biomarkers in 11/24 patients (45.8%) with Gleason 6 (3+3) and in 13/24 (54.2%) showing Gleason patterns 4 and 5 at biopsy, again, no statistically significant difference in leptin (p=0.4), adiponectin (p=0.6) and MMP-3 (p=0.5) levels was found. *Conclusion:* In our preliminary study, we found increased plasmatic levels of leptin and MMP-3 in obese and normal-weight patients undergoing prostate biopsy, respectively. The significance of this finding, in patients with an elevated PSA, is uncertain. On the other hand, no other statistical difference was found between BMI, plasmatic levels of leptin, adiponectin, MMP-3 and detection of an aggressive Gleason pattern at biopsy.

We wish to thank the GSTU Foundation for the administrative support.

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BEYOND THE COMPLEXITY OF TUMOR EXCISION DURING PARTIAL NEPHRECTOMY: IDEATION AND HISTOPATHOLOGICAL VALIDATION OF THE SURFACE-INTERMEDIATE-BASE (SIB) MARGIN SCORE

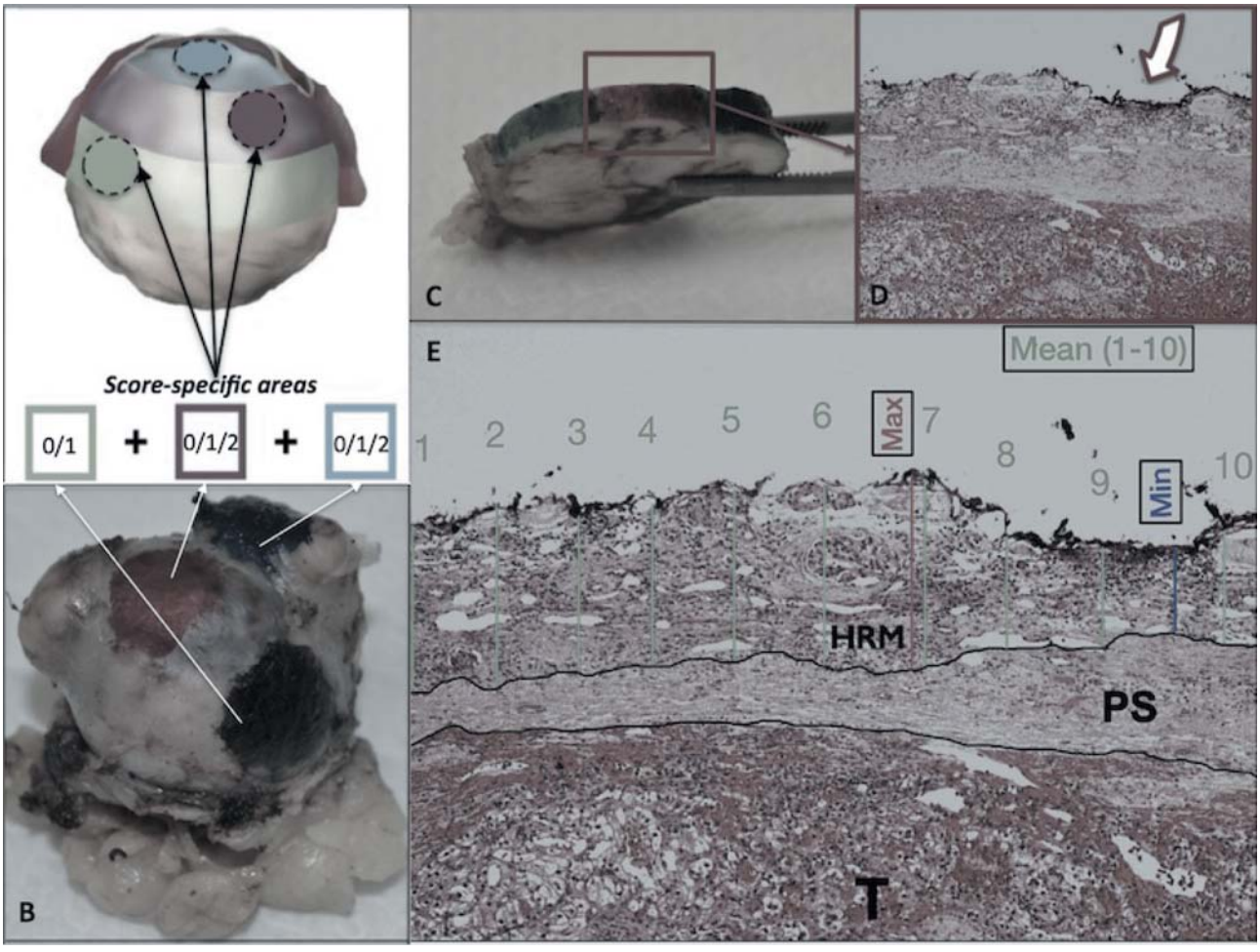
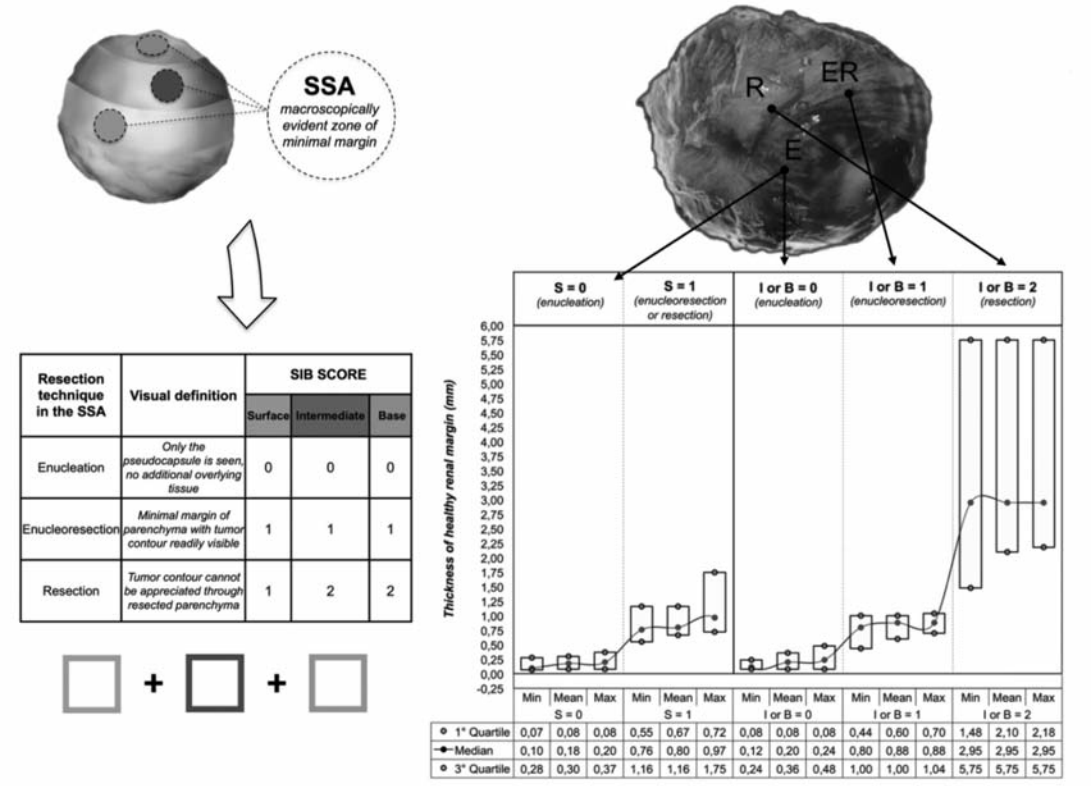


Figure 1. *360 overall histological measures.*



Resection technique in the SSA	Visual definition	SIB SCORE		
		Surface	Intermediate	Base
Enucleation	*Only the pseudocapsule is seen, no additional overlying tissue*	0	0	0
Enucleoresection	*Minimal margin of parenchyma with tumor contour readily visible*	1	1	1
Resection	*Tumor contour cannot be appreciated through resected parenchyma*	1	2	2

	S = 0			S = 1			I or B = 0			I or B = 1			I or B = 2		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
1° Quartile	0,07	0,08	0,08	0,55	0,67	0,72	0,08	0,08	0,08	0,44	0,60	0,70	1,48	2,10	2,18
Median	0,10	0,18	0,20	0,76	0,80	0,97	0,12	0,20	0,24	0,80	0,88	0,88	2,95	2,95	2,95
3° Quartile	0,28	0,30	0,37	1,16	1,16	1,75	0,24	0,36	0,48	1,00	1,00	1,04	5,75	5,75	5,75

Figure 2. *Box-plots showing the minimum (Min), mean and maximum (Max) thickness of healthy renal margin (HRM) for the score-specific area (SSA) – grades Surface=0 (S=0), Surface=1 (S=1), Intermediate or Base=0 (I or B=0), Intermediate or Base=1 (I or B=1) and Intermediate or Base=2 (I or B=2). Median values and interquartile ranges (white boxes) are shown. Thickness of HRM was significantly different between both the SSA-grades S=0 and S= 1 (p<0,001) and the SSA-grades I or B=0, I or B=1 and I or B=2 (p<0,001), for all histological measures (maximum, minimum and mean values). S, surface; I, intermediate; B, base.*

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Introduction/Aim: Tumor excision is a fundamental step during partial nephrectomy (PN), yet resection technique (RT) is rarely reported in current nephron-sparing surgery (NSS) literature. We recently proposed the Surface-Intermediate-Base (SIB) margin score as a new classification model for standardized reporting of RT during NSS. The aim of the study was to validate the SIB model from a histopathological perspective. *Materials and Methods:* Data were prospectively collected from a cohort of 40 patients undergoing NSS, between June and September 2014, at a single Institution. The SIB score was assigned in the operating room by the surgeon. The score-specific areas (SSA) were outlined on a digital picture as anatomic landmarks for histopathological analysis. Two dedicated uropathologists inked the landmark areas and measured, in a blinded fashion, the maximum, minimum and mean thickness of healthy renal margin (HRM) within the SSAs (360 overall histologic measures, Figure 1). The Mann-Whitney U-test was used to assess the correlation between the SIB visual definitions of RTs and the thickness of HRM at histopathological analysis. *Results:* The overall RT was classified as pure enucleation, hybrid enucleation and pure enucleoresection in 28 (70%), 7 (17%) and 3 (7%) patients, respectively, while as hybrid enucleoresection and resection in 1 (3%) patient each. At histopathological analysis, the maximum, minimum and mean thickness of HRM was significantly different among SSAs visually defined as enucleation (S=0: median=0.18mm (interquartile range (IQR)=0.08-0.30), I or B=0: median=0.20 mm (IQR=0.08-0.36)), enucleoresection (S=1: median=0.80 mm (IQR=0.67-1.16), I, B=1: median=0.88 mm (IQR=0.60-1.00)) and resection (S=1, I, B=2: median=2.95 mm (IQR=2.18-5.75)

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

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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 tomatos, 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.

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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 hematoxilyn-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