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.

81

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.
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 SSA (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 healthy renal margin (HRM) was significantly different among SSAs visually defined as enucleation (S=0: median=0.18 mm (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)).
A WHOLE TOMATO-BASED DIETARY SUPPLEMENT TO COMPLEMENT THE OUTCOMES OF THE WCRF/AICR RECOMMENDATIONS

Mauro Piantelli¹, Vincenzo Fogliano², Luigi Di Cormio³, Oscar Selvaggio⁴, Giuseppe Carriera, Stefano Iacobelli⁴ and Pier Giorgio Natali⁵

¹Department of Medical, Oral and Odontostomatologic Sciences, University "G. D’Annunzio" of Chieti-Pescara, Chieti (CH), Italy;
²Food Quality and Design, Wageningen University, Wageningen, Netherlands;
³Urologic Clinic, University of Foggia Foggia, Italy;
⁴Medical Oncology, University "G. D’Annunzio" of Chieti-Pescara, Chieti, Italy;
⁵Immunology, MediaPharma Srl, Chieti, Italy

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 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 vegetable 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.