of the bulbar urethral strictures but its use for pendulous and pan-anterior urethral strictures has not been reported widely. This study was done to assess the outcome of single-stage dorsal onlay BMG urethroplasty for pendulous and pan-urethral strictures in terms of voiding function, erectile function and morbidity of oral cavity.

METHODS: A total of 44 patients underwent dorsal onlay buccal mucosa graft urehtroplasty from October 2006 to March 2010 out of which 21 were complex strictures involving pendulous urethra only (6), segments of both pendulous and bulbar urethra (6) and pan-urethral strictures (9). Age of the patients ranged from 30 to 67 (mean=51.8) years. Mean graft length was 9.5 cm (range, 6-16 cm). Etiology of the stricture was instrumentation (9), balanitis xerotica obliterans (5) and idiopathic (7). Ten patients underwent OIU and 4 patients had got suprapubic cystostomy done prior to surgery. Buccal mucosa graft site was left unsutured in all cases after securing hemostasis. All procedures were done through perineal incision. Recurrence rates, need for further procedures, erectile dysfunction and complications were analysed retrospectively.

RESULTS: Eighteen (85.7%) patients were stricture free at a mean follow up of 33.4 (range, 8–48) months. All 3 (14.3) recurrences presented within first 7 months of the procedure, 2 were panurethral strictures out of which one required meatal dilatation and other required OIU. One pendulous urethral stricture also required OIU. Two patients (both panurethral) complained of significant chordee. No patient complained of deterioration of erectile function after the procedure however 1 noted improvement in sexual activity. Four (19%) patients continued to have graft site numbness even after 6 months. No patient complained of difficulty in mouth opening.

CONCLUSIONS: Pendulous and panurethral strictures can be reconstructed satisfactorily by single stage dorsal onlay buccal BMG urethroplasty with acceptable complication rates. Leaving graft site unsutured causes minimal post-operative morbidity. Possibility of chordee (in patients with pan-urethral strictures) and numbness of oral mucosa should be explained to the patients before the procedure.

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Prostate Cancer: Detection and Screening

Podium 23

Monday, May 16, 2011 **8:00 AM-10:00 AM**

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THE VALUE OF COMPUTED TOMOGRAPHY IN DETECTING PROSTATE CANCER LYMPH NODE METASTASIS IS LIMITED EVEN IN CONTEMPORARY PATIENTS WITH VERY HIGH RISK OF NODAL INVOLVEMENT

Alberto Briganti, Andrea Gallina, Nazareno Suardi, Marco Bianchi, Manuela Tutolo, Umberto Capitanio, Dario Di Trapani, Rayan Matloob, Renzo Colombo, Andrea Salonia, Patrizio Rigatti, Francesco Montorsi, Milan, Italy*

INTRODUCTION AND OBJECTIVES: Previous studies have shown a limited ability of Computed Tomography (CT) to predict lymph node invasion (LNI) in patients with prostate cancer (PCa). According to guidelines, CT scanning may only be warranted in patients with a very high risk of harbouring lymph node metastases. However, the performance characteristics of CT scan has never been tested in contemporary patients treated with extended pelvic lymph node dissection (ePLND).

METHODS: The study included 1541 patients with clinically localized PCa treated with radical prostatectomy and ePLND between 2002 and 2009 at a tertiary referral center. Extended PLND was defined as removal of obturator, hypogastric and external iliac nodes. All patients underwent pre-operative CT scan. Suspicious CT scan was defined as the presence of at least 1 pelvic enlarged node (≥1 cm). Presence of positive nodes at ePLND was available for all patients. The senstivity, specificity and accuracy of CT scan in detecting LNI was calculated according to risk groups: low (PSA<10 ng/ml and biopsy Gleason scum≤6 and cT1), high (PSA>20 ng/ml or biopsy Gleason sum≥8 or cT3) and intermediate (all the remaining patients) Pca. Moreover, the performance characteristics of CT scan in detecting LNI was assessed according to most-informative cut-offs risk for LNI calculated by using a nomogram developed on the same ePLND series.

RESULTS: Overall, a CT scan suspicious for LNI was found in 73 patients (4.7%). Of these, 24 (32.9%) had LNI at ePLND. Overall, 471 (30.6%), 689 (44.7%) and 381 (24.7%) patients had low, intermediate and high risk PCa, respectively. In the entire group (n=1541), CT sensitivity, specificity and accuracy was 13, 96 and 54%, respectively. Similarly, sensitivity, specificity and accuracy was 8.3, 96 and 52%, 4,97 and 51%, 18,94 and 56% in the low (n=471), intermediate (n=689), and high risk group (n=381), respectively. After applying the most-informative cut-offs derived from the nomogram (namely, 36 and 50% risk of LNI), the discriminative power of CT scanning for LNI detection remained modest (sensitivity, specificity and accuracy was 23.5, 93 and 58.3% vs 28.9, 87.5 and 56.4% for patients with a calculated LNI risk>36 and >50%, respectively.)

CONCLUSIONS: Sensitivity and accuracy of CT scan in detecting positive lymph nodes at RP and ePLND are low even in contemporary patients with a very high risk of nodal involvement. Therefore, optimal treatment planning cannot be reliably based on the results of pre-operative CT scanning even in high risk disease.

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DIAGNOSTIC PERFORMANCE AND OPTIMAL SEQUENCE OF MRI IN DETECTING PROSTATE CANCER

Soichiro Yoshida, Satoru Kawakami, Chikako Ishii, Hiroshi Tanaka, Yoshinobu Komai, Mizuaki Sakura, Noboru Numao, Kazutaka Saito, Fumitaka Koga, Hitoshi Masuda, Yasuhisa Fujii, Kazunori Kihara, Tokyo, Japan*

INTRODUCTION AND OBJECTIVES: To assess the diagnostic performance and optimal combination of multi-sequence pre-biopsy MRI in detecting prostate cancer.

METHODS: Four hundred patients who underwent prostate biopsy at a single academic center were enrolled in this prospective study. Biopsy criteria included an elevated PSA level above 2.5 ng/ml and/or abnormal digital rectal examination (DRE) findings. Body-coil MRI including T2-weighted imaging (T2W) and diffusion-weighted MRI (DWI) and/or dynamic contrast-enhanced T1-weighted imaging (DCE) were performed using a 1.5-Tesra imager prior to biopsy. Patients were randomly divided into 2 groups. In each group, the image reading was performed in an order of T2W, DWI to DCE or T2W, DCE to DWI. Patients with PSA level greater than 20 ng/ml and those whose biopsied sampling cores were less than 14 were excluded.

RESULTS: The 353 were eligible for this analysis. The median (interquartile range) values of age, PSA, and free PSA were 66 yr (60–71), 6.6 ng/ml (5.0–9.6), and 1.08 (0.76–1.56), respectively. Seventy patients (19.8%) had positive DRE findings. The core numbers of biopsy was 26 (14–26), and biopsy cancer detection rate was 48.7%. Sensitivity/specificity/accuracy of T2W, DWI and DCE were 55/80/59%, 55/85/71% and 59/77/68%, respectively. Multivariate analysis showed that T2W was a significant indicator of the positive biopsy result ($p < 0.001$; OR = 4.2) independent of age, DRE, PSA and free PSA. When T2W was considered along with these clinical variables, area under the curve (AUC) of the logistic regression-based predicting model was improved from 0.73 to 0.78. In cases reviewed in an order of T2W to DWI, additional use of DWI to this predicting model further improved the diagnostic ability to AUC of 0.81 (T2W; $p = 0.04$, OR = 2.7 and DWI; $p = 0.01$, OR = 3.0). In cases reviewed in an order of T2W to DCE, when the DCE finding was incorporated to the clinical variables plus T2W, the AUC was also improved to 0.81 (T2W; $p < 0.01$,