

urodynamic testing for urinary tract surveillance is scarce thus there is great variability in the surveillance methods of these patients in urologic practices in the United States and around the world. The objective of this study was to evaluate the efficacy of annual renal tract ultrasound rather than regular urodynamic testing for urinary tract monitoring in our population of SCI patients managed with long-term intermittent catheterization.

METHODS: Data was gathered retrospectively from the records of 48 SCI patients (40 males and 8 females) included in the study. After establishing a safe system with initial urodynamics, renal tract surveillance was done with annual ultrasonography. Urodynamics were repeated only when patients presented with new symptoms. The primary endpoint was the presence/absence of ultrasound abnormalities at last follow-up. Findings of dilation, calculi, and scarring were noted.

RESULTS: Mean follow-up was 6.8 years. By final follow-up 7 (15%) subjects had moderate/minimal hydronephrosis. 3 cases were stable and 4 (8%) cases were new compared to initial assessment. No severe cases of hydronephrosis were noted. 5 (10%) subjects had renal/ureteral calculi; one case of calculi was stable compared to the initial exam. No new cases of renal cortical scarring/thinning were noted.

CONCLUSIONS: There are no consensus guidelines for the routine monitoring of the urinary tract in SCI patients. Using routine renal tract ultrasonography, the abnormalities detected in our patients were early consequences of acute obstructive processes rather than late manifestations of detrusor changes, thus they could not have been prevented with more regular urodynamic testing. These results support the regular use of ultrasonography rather than urodynamics for urinary tract surveillance in SCI patients.

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2200 RESISTIVE INDEX DOES NOT VARY WITH LOCATION IN THE TESTIS

Joel Hillelsohn*, Mahyar Kashan, Bruce Gilbert, Lake Success, NY

INTRODUCTION AND OBJECTIVES: Elevations in Resistive Index (Ri) is a non-invasive indicator of impaired testicular microcirculation, dyspermia and hypothalamic-pituitary-gonadal axis abnormalities. However, whether measurement varies with location in the testis has not been elucidated. This study answers this question by measuring the Ri of intratesticular arteries from the upper, middle and lower testis.

METHODS: The spectral Doppler evaluation was performed in 31 patients (59 testes) presenting with infertility or testicular pain and palpably normal testes. Our standard protocol included spectral Doppler interrogation of a single centripetal artery or recurrent rami from the upper, middle and lower portions of each testis. A BK medical Flex focus ultrasound with an 18 MHz linear array transducer was used by a single sonographer for all measurements. The groups were compared using t tests and ANOVA tests as appropriate.

RESULTS: Ri measured in the upper or lower testis did not significantly differ from mid testes. An ANOVA between the three groups also showed no significant difference (Right p= 0.52, Left p= 0.72). In addition, the average RI of both testes was not significantly different (p=0.82). These results are outlined in Table #1 and #2.

CONCLUSIONS: Spectral Doppler results are equal whether taken from arteries in the upper, mid or lower testis. Ri does not vary with location in the testis. A single Ri measured anywhere in the testis is a valid indicator of testicular microcirculation.

Table #1- Ri Parameters vs Mid Testes Ri

	Ri Mean \pm SD	p value vs mid testes
Right Upper Testes	0.62 \pm 0.11	0.46
Right Mid Testes	0.59 \pm 0.13	1
Right Lower Testes	0.59 \pm 0.15	0.98
Left Upper Testes	0.62 \pm 0.15	0.35
Left Mid Testes	0.59 \pm 0.13	1
Left Lower Testes	0.61 \pm 0.15	0.48

Table # 2- Average Ri Right Testes vs Ri Left Testes

	Right Testes	Left Testes	p=
Varicocele Mean \pm SD	5.4 \pm 1.3	5.4 \pm 1.7	0.96
Testes Volume	11.6 \pm 4.7	11.0 \pm 4.8	0.62
Ri Mean \pm SD	0.60 \pm 0.13	0.61 \pm 0.14	0.82

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Prostate Cancer: Detection and Screening V Moderated Poster

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2201 DISCORDANCE RATES OF BIOPSY TECHNIQUES AMONG MEN WITH PROSTATE CANCER THAT ARE CANDIDATES FOR ACTIVE SURVEILLANCE

Brian Linder*, Igor Frank, Eric Umbreit, Mark Shimko, Nicolás Fernández, Laureano Rangel, R. Jeffrey Karnes, Rochester, MN

INTRODUCTION AND OBJECTIVES: With the ongoing stage migration in the diagnosis of prostate cancer, there has been increased interest in management with active surveillance. Our study examines the ability of two prostate biopsy techniques to predict appropriate candidates for active surveillance.

METHODS: 500 consecutive patients, between 2005 and 2007, that underwent trans-rectal ultrasound guided biopsy by either an office biopsy with 12 cores or a saturation biopsy with \geq 18 cores, and subsequent radical prostatectomy were identified. Using criteria of: Gleason score \leq 6, clinical stage T1 or T2a, Prostate Specific Antigen (PSA) $<$ 10 and \leq 33% of cores involved, 220 patients were found to be candidates for active surveillance. Pathology results from the prostatectomy specimens were used to determine the discordance rate of each biopsy technique.

RESULTS: Of the 220 candidates for active surveillance, 124 patients underwent an office biopsy with 12 cores, and 96 patients underwent a saturation biopsy. The median number of cores in the saturation biopsy cohort was 27. There was no statistically significant difference between the groups in terms of median age (p=0.18), pre-operative PSA (p=0.48) and clinical stage (p=0.2). At least one previous negative biopsy had been performed on 20 patients (16%) in the office cohort and 43 patients (45%) in the saturation cohort (p= $<$ 0.001). In the 12 core biopsy group, 17 patients (14%) were upgraded to Gleason 7 on pathology from the prostatectomy specimen. In the saturation biopsy group, 14 patients (15%) were upgraded to Gleason 7, and 1 patient (1%) was upgraded to Gleason 8. There was no statistically significant difference in the rate of upgrading between the office and saturation biopsy cohorts (p=0.69). In the office biopsy group, 2 patients (1.6%) were upstaged to pT3 disease, compared to 0 patients (0%) in the saturation biopsy group (p=0.58). No statistically significant difference in the estimated tumor volume of the prostatectomy specimen was seen between the cohorts (p=0.47).

CONCLUSIONS: Candidates for active surveillance can accurately be predicted with 12 core biopsies. In both cohorts, approximately 1 in 6 patients underwent upgrading based on the pathology of the prostatectomy specimen.

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