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1219 THE USE OF UROFLOWOMETRY TO EVALUATE FOR STRICTURE RECURRENCE AFTER URETHRAL RECONSTRUCTION

Permalink

<https://escholarship.org/uc/item/2fw7z1sc>

Journal

Investigative Urology, 183(4)

ISSN

0021-0005

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Publication Date

2010-04-01

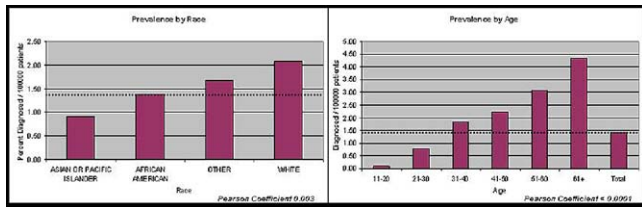
DOI

10.1016/j.juro.2010.02.742

Peer reviewed

distribution was also broken down by region, as defined by Department of Health and Human Services, and ranged from 0.3/100,000 (Region 2, New York) to 2.2/10,000 (Seattle) (Pearson Chi-Square <.0001).

CONCLUSIONS: In the Department of Defense's equal-access health care system, 1.4/100,000 males evaluated had LS. Cases of LS appear to be more frequent among white males, especially after the third decade of life. There may also be a difference in the likelihood of diagnosis by geographic region with more cases of LS occurring in the Western United States. Additional analyses are needed to explore these highly provocative findings more thoroughly.



Source of Funding: None

Table 1: Uroflowmetry and diagnosis of recurrent stricture disease as compared to RUG/VCUG findings

	Sensitivity	Specificity	Positive Predictive Value	Negative Predictive Value
Flow Rate < 10mL/sec	54	93	73	86
Flow Rate < 15mL/sec	76	84	61	91
Flow Rate < 20mL/sec	92	67	48	96
Obstructive voiding curve	93	84	71	97
Symptoms only	87	88	71	95
Flow Rate < 10mL/sec + obstruction	54	94	76	86
Flow Rate < 10mL/sec + obstructive curve + symptoms	51	98	90	86
Symptoms and Obstructive curve	76	96	87	92
Symptoms and/or Obstructive curve	99	80	61	99

Source of Funding: None

1219 THE USE OF UROFLOWMETRY TO EVALUATE FOR STRICTURE RECURRENCE AFTER URETHRAL RECONSTRUCTION

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INTRODUCTION AND OBJECTIVES: The gold-standard for diagnosing urethral stricture disease is a combined retrograde urethrogram and voiding cystourethrogram (RUG/VCUG). Uroflowmetry (UF) is a common adjunct to these studies, though its ability to diagnose recurrence of stricture by itself after urethral reconstruction has not been fully investigated before.

METHODS: Our routine post-operative monitoring of urethroplasty patients includes RUG/VCUG at 3 and 12 months, and UF at 3 month intervals for a year. Patients then follow-up annually with UF, and additional RUG/VCUG testing is performed if the UF is abnormal or if the patient has new voiding symptoms. All UF, RUG/VCUG, and symptom data is stored in a prospectively maintained urethroplasty database. For this study, data from the last 10 years was analyzed and any patient that obtained a post-operative RUG/VCUG and a satisfactory UF (recorded max flow rate, voided volume > 150 cc, analysis of voiding curve (obstructed or normal) and record of current voiding symptoms) on the same day were included. UF data points, including max flow rates, obstructed/flat flow curve and presence of urinary symptoms, as well as combinations of these tests, were compared to the findings reported on the RUG/VCUG to determine their ability to predict for recurrence.

RESULTS: A total of 407 patients with UF data underwent urethroplasty, of which 285 (70%) met inclusion criteria. Of included men, 64 (22%) had stricture recurrence (median 7.5 (1-79) months). Table 1 shows the sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of each parameter as well as combinations of them. The highest specificity (98%) and PPV (90%) was achieved with a flow rate of < 10 mL/sec, an obstructive voiding curve and urinary symptoms, but this resulted in a low sensitivity (51%). The highest sensitivity (99%) and NPV (99%) was achieved when all men with symptoms and/or obstructed uroflow were evaluated. Symptoms alone had a high specificity (87%), sensitivity (88%) and NPV (95%) for predicting stricture recurrence.

CONCLUSIONS: UF is an adequate test to screen for post-operative stricture recurrence, but only when the voiding curve and urinary symptoms are also evaluated. Flow rates alone do not appear to be very helpful when used to evaluate stricture disease.

1220 GRAFTS ARE UNNECESSARY FOR PROXIMAL BULBAR RECONSTRUCTION

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INTRODUCTION AND OBJECTIVES: Strictures of the proximal bulbar urethra have been proposed as being uniquely amenable to excision and primary anastomosis (EPA) procedures as opposed to those occurring more distally (J Urol 2007; 177, p37A). We compared our recent experience with reconstruction of proximal versus distal bulbar strictures to assess the relative role of EPA and graft procedures in each area.

METHODS: We reviewed our database of all urethroplasties performed by a single surgeon at our referral center during a two year period. Data analyzed included patient history and demographics, operative details, stricture length and location, and clinical outcomes. The proximal bulbar urethra was defined as the segment within 5 cm of the membranous urethra; the distal bulb was defined as the adjoining segment extending to the penoscrotal junction. Cases involving the pendulous or posterior urethra were excluded.

RESULTS: Of the 210 consecutive men having urethral reconstruction at our center from 2007-2009, 112 had bulbar strictures. Proximal bulbar urethral strictures comprised the majority of cases (72/112, 64%) and all 72 were treated via EPA procedures: no patient with a proximal bulbar stricture required a graft procedure. Median stricture length was 2 cm (range 1-4.5 cm) although 31/72 (43%) were of intermediate length (2.5-5 cm); median stretched penile length (SPL) was 15 cm. Prior to referral, treatment had been performed in 51/72 (71%) of patients, with 10/72 (14%) having prior urethroplasty. At a median follow-up of 358 days, recurrence was seen in only 1/72 (1.4%), a patient with a history of multiple prior urethral dilation procedures. Distal bulbar strictures comprised 40/112 (36%) of cases and were treated predominantly with substitution urethroplasty (36/40, 90%), and less commonly via EPA (4/40, 10%). Median stricture length was 2.5 cm and intermediate length strictures were noted in 18/40 (45%). Prior treatment was noted in 26/40 (65%), with 11/40 (28%) having prior urethroplasty. At a median follow-up of 529 days, recurrence was seen in 11/40 (28%). Among intermediate length strictures, recurrence was seen in only 1/30 (3.3%) of those treated with EPA and in 6/19 (32%) managed by graft procedures (p = 0.02).

CONCLUSIONS: EPA is associated with superior outcomes compared to graft procedures and should be performed whenever possible. Location is of critical importance in selecting the appropriate reconstructive technique for bulbar urethral strictures and the proximal