

test and the Incontinence Quality of Life questionnaire were completed preoperatively and at 3 and 6 months postoperatively.

Results: The median age at the procedure was 63.3 years (range 44.7-74.7). The mean preoperative and 6-month postoperative patient-reported pad use was 4.52 and 1.04, respectively (2-tailed t test, $P = .0009$). The 24-hour pad test, performed preoperatively and at 6 months postoperatively, yielded a pad weight of 779.3 and 67.6 g, respectively ($P = .03$). The Valsalva leak point pressure improved significantly ($P = .032$), but the detrusor voiding pressure, postvoid residual urine volume, and maximal and average flow rates remained relatively unchanged. At 3 and 6 months postoperatively, the Incontinence Quality of Life scores had improved significantly compared with the preoperative scores ($P < .01$).

Conclusions: These results are encouraging, because this series has demonstrated a significant improvement in patient-reported pad use, 24-hour pad test weights, and Valsalva leak point pressure without signs of obstruction. The improvement in incontinence was accompanied without any changes in the other voiding parameters and with significant improvement in the quality-of-life measures. Ongoing studies with longer follow-up are pending to compare their results with these promising early results.

Editorial Comment

The authors present urodynamic data supporting the concept that the transobturator sling achieves continence by means other than compression. Original reports from developers of the sling (1) supported the concept that it achieved continence by lengthening of the membranous urethra. The current article does not shed light on whether that is indeed the mechanism but it does show that pressure-flows studies are not consistent with obstruction. Curiously, 2 of 13 patients had to perform intermittent catheterization postoperatively for urinary retention lasting up to 2 weeks. It would be interesting to know whether the urodynamic outcomes of these 2 patients were any different from the rest. With only 13 patients and large standard deviations around the variables of interest, the study is underpowered to test anything but an enormous difference in voiding parameters; however, with pre- and post-op flow rates and pressures so close to each other it is hard to believe the findings would be clinically significantly different even with a larger cohort. While the findings deserve to be validated by other centers, the conclusions remain important.

Reference

1. Rehder P, Gozzi C: Transobturator sling suspension for male urinary incontinence including post-radical prostatectomy. *Eur Urol.* 2007; 52: 860-6.

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UROLOGICAL ONCOLOGY

Prostate cancer detection rate in patients with repeated extended 21-sample needle biopsy

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Eur Urol. 2009; 55: 600-6

Background: Prevalence of prostate cancer (PCa) after a negative first extended prostate needle biopsy protocol is unknown.

Objective: To evaluate the prevalence of significant PCa in patients who have had a negative first extended prostate biopsy protocol.

Design, Setting, and Participants: Between March 2001 and May 2007, 2500 consecutive patients underwent an extended protocol of 21 biopsies. Of 953 patients who had a negative first extended prostate biopsy procedure, 231 patients underwent a second or more set of 21-core biopsies. Indications for repeated biopsies were persistently elevated prostate-specific antigen (PSA), PSA increase during the follow-up, or prior prostatic intraepithelial neoplasia (PIN), or atypical small acinar proliferation (ASAP).

Intervention: All participants underwent at least two extended prostate needle biopsy protocols.

Measurements: Clinical and pathologic factors (age, PSA, PSA doubling time, PIN, ASAP, digital rectal exam [DRE]) were analyzed for their ability to predict positive biopsy, and tumour parameters were assessed in patients undergoing radical prostatectomy.

Results and Limitations: Second, third, and fourth extended 21-sample biopsy procedures yielded a diagnosis of PCa in 18%, 17%, and 14% of patients respectively. Patients with prior PIN had 16% risk of prostate cancer; patients with ASAP had a 42% risk. The mean number of positive cores was 2.19. Prostate volume and PSA density were statistically significant predictors of positive biopsy ($p < 0.05$). For the 43 patients who underwent radical prostatectomy, pathologic findings revealed mean Gleason score of 6.7 (6-8), pT2a-c in 72%, pT3a in 16%, and pT4 in 7%. Mean cancer volume was 1.15 cc and 85.2% of tumours were clinically significant (tumour volume > 0.5 cc, Gleason ≥ 7 and/or pT3).

Conclusions: Negative first extended biopsies should not reassure a patient of not having PCa. However, prostate cancers detected after two or more sets of extended procedures, appear to be localized (intracapsular disease) and well-differentiated prostate cancers, although they are still clinically significant.

Editorial Comment

The authors report on a large series of extended 21-sample needle biopsies in 2500 consecutive patients with suspect prostate cancer.

There are several interesting issues for the clinician. First, this procedure was done in an outpatient 2-hour setting with local anesthesia. Next, the results show that with each new round of biopsies roughly 15% of cancers are detected (18%, 17%, 14% for the second, third and fourth biopsy procedure, respectively). This leads to the conclusion that in case of continued suspicion the urologist and his/her patient should not give up. Notably, most of these cancers were significant (82.5%). Of the 58 cancers diagnosed, 65% had PSA levels between 4 and 10 ng/ml. Seventy-six percent and 10% had biopsy Gleason sum 6 and 7a (3+4), respectively. Interestingly, of those 43 patients from this group who underwent radical prostatectomy 30% had Gleason sum score 6 and roughly 60% had Gleason sum score 7a, again suggesting an undergrading in core biopsies.

There are much more details and I recommend the paper for reading.

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