

Results: The overall cancer detection rate was 38% and 51% for 6 and 12 core biopsy, respectively. In patients with PSA between 4.1 and 10 ng/ml the cancer detection rate was 30% and 49% for 6 and 12 core biopsy, respectively.

Conclusions: The 12 core transperineal prostate biopsy is superior to 6 core biopsy. The technique provides optimal prostate cancer diagnosis. About half of the patients with PSA greater than 4.0 ng/ml and a slightly lower percent with PSA between 4.1 and 10 ng/ml have prostate cancer.

Editorial Comment

The rationale for performing 12 core biopsies in patients with prostate carcinoma is rarely given as clear as it is in the data presented with this paper.

Moreover, these data provide an impressive insight into true (?) the incidence of prostate carcinoma in a population with elevated PSA. Overall cancer detection rate was 38% and 51 % for 6 and 12 core biopsies, respectively. In patients with PSA between 4 and 10 ng/ml, the cancer detection rate was 30% and 49% for 6 and 12 core biopsies, respectively. The positive DRE rate in both groups was around 25 %. The authors conclusion is, 6 core prostate biopsy techniques should be considered outdated, and, about 50% of patients with increased PSA have prostate cancer. These two sentences deserve no further emphasis.

Dr. Andreas Böhle
Professor of Urology
HELIOS Agnes Karll Hospital
Bad Schwartau, Germany

FEMALE UROLOGY

The tensile properties of tension-free vaginal tape and cadaveric fascia lata in an in vivo rat model

Spiess PE, Rabah D, Herrera C, Singh G, Moore R, Corcos J
Department of Urology, McGill University, Montreal, Canada
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Objective: To examine the tensile properties (break load and maximum average load), after in vivo implantation in a rat animal model, of tension-free vaginal tape (TVT) and cadaveric fascia lata (CFL), as pubovaginal slings of these materials have become popular for treating stress urinary incontinence.

Materials and Methods: Twenty Sprague-Dawley rats (300-400 g) had 1 x 2 cm strips of commercially available TVT and CFL implanted on the right and left anterior abdominal wall, respectively. Half of the animals were then killed at 6 weeks and the remainder at 12 weeks, after which the strips of TVT and CFL were removed and their tensile properties measured using a tensiometer. The tensile strength of TVT and CFL strips maintained only in normal saline served as controls.

Results: The TVT strips had a mean break load of 0.740 kg in the control and only 0.390 kg for CFL ($P < 0.05$). At 6 weeks the TVT material had a mean (sd) maximum average load of 0.634 (0.096) kg and a mean break load of 0.589 (0.249) kg, whereas the respective values for the CFL were 0.323 (0.198) and 0.167 (0.063) kg ($P < 0.05$). Similarly at 12 weeks, TVT had a greater mean maximum average and break load than CFL, at 0.742 (0.052) and 0.274 (0.126), and 0.737 (0.056) and 0.185 (0.128) kg, respectively.

Conclusion: This is the first study to assess the tensile properties of the currently used sling materials, TVT and CFL, in an in vivo model. TVT has a greater break load and maximum average load than CFL; the tensile strength of these materials does not decrease with time.

Editorial Comment

The authors measure and compare the tensile properties of commercially available synthetic polypropylene mesh and cadaveric fascia lata after 6-12 weeks of in vivo implantation. Their description and quantification of the temporally associated comparative changes of these materials help shed light on one of the potential causes of failures of suburethral slings using cadaveric fascia lata. The implantation site was abdominal which does raise the specter of a possible different induced tissue change or alteration had the materials been placed in the suburethral area (a site oft plagued with postoperative bleeding). This study does highlight the long-term durability of the polypropylene mesh without an associated potential genetic contamination. The interested urologist looks forward to the author's promised further long-term studies utilizing this clinical, experimental model.

Dr. Steven P. Petrou

*Associate Professor of Urology
Mayo Medical School
Jacksonville, Florida, USA*

Cesarean section: does it really prevent the development of postpartum stress urinary incontinence? A prospective study of 363 women one year after their first delivery

Groutz A, Rimon E, Peled S, Gold R, Puzner D, Lessing JB, Gordon D

Urogynecology and Pelvic Floor Unit, Department of Obstetrics and Gynecology, Lis Maternity Hospital, Tel Aviv Sourasky Medical Center, affiliated to the Sackler School of Medicine, Tel Aviv University, Israel

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Aims: Stress urinary incontinence (SUI) in young women is usually the result of pelvic floor injury during vaginal delivery. Whether cesarean section delivery may prevent such injury is questionable. We undertook a prospective study to compare the prevalence of SUI among primiparae 1 year after spontaneous vaginal delivery versus elective cesarean section, or cesarean section performed for obstructed labor.

Methods: Three hundred and sixty-three consecutive primiparae were recruited immediately after delivery and were followed for 1 year. Women were asked upon recruitment whether they had ever experienced SUI before pregnancy. Those who had SUI before pregnancy were excluded. Thus, only cases of de novo childbirth-associated SUI were analyzed. Patients were divided into three subgroups according to the mode of delivery: spontaneous vaginal delivery (n = 145), elective cesarean section (n = 118), and cesarean section performed for obstructed labor (n = 100). Patients who underwent elective cesarean section were not given a trial of labor. Cesarean sections for obstructed labor were performed at a mean cervical dilatation of 8.7 +/- 1.6 cm and arrest of 184 +/- 24 min. Prevalence, frequency, and severity of postpartum SUI, as well as demographic and obstetric parameters, were analyzed in each subgroup.

Results: The three subgroups were comparable with respect to maternal age, weight, and height. Prevalence of postpartum SUI was similar after spontaneous vaginal delivery (10.3%) and cesarean section performed for obstructed labor (12%). However, SUI was significantly less common following elective cesarean section with no trial of labor (3.4%, P < 0.05). Approximately half of the symptomatic patients in each subgroup reported either moderate or severe symptoms, however, only 15-18% expressed their desire for further evaluation.

Conclusions: Prevalence of postpartum SUI is similar following spontaneous vaginal delivery and cesarean section performed for obstructed labor. It is quite possible that pelvic floor injury in such cases is already too extensive to be prevented by surgical intervention. Conversely, elective cesarean section, with no

trial of labor, was found to be associated with a significantly lower prevalence of postpartum SUI. Whether the prevention of pelvic floor injury should be an indication for elective cesarean section is yet to be established.

Editorial Comment

The authors attempt to illuminate the timing and role of cesarean section with regard to postpartum stress urinary incontinence by examining a study population divided into three subgroups. The first group being 145 primiparae women who underwent spontaneous vaginal delivery, the second group being 118 primiparae women who underwent selective cesarean section and a the third group of 100 primiparae women who underwent cesarean section for obstructed labor. The authors, in their paper, come to a clearly defined conclusion that childbirth induced stress urinary incontinence is best prevented through elective cesarean section prior to the onset of labor. In addition, it is noted in the report that cesarean section performed for obstructed labor was not associated with a diminished incidence of postoperative stress urinary incontinence. They also found that patients who have new onset stress urinary incontinence during pregnancy will have an increased risk of stress urinary incontinence at one year postpartum measurements.

The authors should be commended for this excellent paper for it is noteworthy in that it compares cesarean section performed before and after obstructed labor and contrasts the results of same. Urologists are often asked by female patients whether having a cesarean section may help them avoid incontinence later in life; this paper answers that question.

Dr. Steven P. Petrou

Associate Professor of Urology

Mayo Medical School

Jacksonville, Florida, USA

PEDIATRIC UROLOGY

Long-term outcome of Fowler-Stephens orchiopexy in boys with prune-belly syndrome

Patil KK, Duffy PG, Woodhouse CR, Ransley PG

Department of Paediatric Urology, Great Ormond Street Hospital for Children, London, United Kingdom

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Purpose: Intra-abdominal testes in boys with prune-belly syndrome have been conventionally managed by 1 or 2-stage orchiopexy with division of the gonadal vessels. We reviewed a series of adults with prune-belly syndrome to assess the morphological and functional outcome of orchiopexy in childhood with specific reference to the spontaneous onset of puberty, hormonal profiles and sexual function.

Materials and Methods: A total of 41 boys were divided into 3 groups depending on the type of orchiopexy performed, namely group 1 - 20 with bilateral 1-stage orchiopexy, group 2 - 10 with unilateral 1-stage and contralateral 2-stage orchiopexy, and group 3 - 11 with bilateral 2-stage orchiopexy.

Results: In group 1, 9 of 20 patients had good scrotal testes bilaterally, 6 had a good scrotal testis on 1 side and 3 had small testes on each side. Two boys required testosterone supplementation but 18 had normal hormonal and sexual function. In group 2 6 of 10 patients had good scrotal testes bilaterally and 4 had a good scrotal testis on 1 side. All patients underwent spontaneous puberty with good sexual function. In group 3, 7 of 11 boys had good scrotal testes bilaterally and 3 had 1 good testis with normal puberty and sexual function. These 10 patients underwent spontaneous puberty with good sexual function.