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Title (type in CAPITAL LETTERS): OUTCOME IN 105 PUBOVAGINAL SLINGS USING FREEZE DRIED ALLOGRAFT FASCIA LATA FROM A SLING TISSUE BANK

Aims of study: To describe experience with allograft fascia lata slings obtained from a single donor bank for treatment of stress urinary incontinence.

Methods: 105 patients underwent allograft fascia lata pubovaginal slings between March 28, 1996 and January 4, 1999. The mean age was 61 years (+/-SD 11.7) and the mean weight was 72 kg (+/-SD 13.6). Seventy percent (74/105) of the patients were on estrogen therapy and 44% (46/105) were sexually active. Prior pelvic surgeries included hysterectomy in 81%(85/105),urethral suspensions in 42% (44/105),pubovaginal slings in 3.8%(4/105),and collagen injection therapy in 15% (16/105). Fourteen percent (15/105) required 2 pads per day for incontinence protection; while 86% (90/105) used between 3-10 pads per day and described the pads as moderately to heavily saturated. 67% (70/105) had preoperative urge incontinent symptoms with urodynamics documenting detrusor instability in 23% (24/105). Twenty six patients were unable to generate a sustained detrusor contraction and emptied with the assistance of a valsalva maneuver. The mean abdominal leak point pressure was 57 cm H20 (+/-SD 28.7). Pelvic organ prolapse was graded by the Baden and Walker Halfway system or by the Pelvic Organ Prolapse Quantitative(POPQ) system. Only 15 patients were described as having either Grade III or Stage III pelvic organ prolapse. The pubovaginal sling was performed using a 2x15cm freeze-dried non irradiated cadaveric fascia lata specimen. Outcome measures were assessed by a urogynecologic questionnaire, pad usage and a disease specific quality of life questionnaire.

Results: There was one perioperative complication, a blood transfusion from a suprapubic catheter placement. No patient developed a symptomatic vaginal infection, urethral or vaginal erosions of the sling, nor other adverse reactions to the sling material. The hospital cost for the 15x2cm allograft was $195.00. The mean operating room time was 84 minutes. Efficient voiding was accomplished by a mean of 5.6 days(+/-SD 3.8). Mean follow up was 13.5 months. Post operative urge incontinence was present in 40 patients (38%) with 17.5% experiencing mild denovo urge incontinence. Six percent of the patients reported moderate to severe urge incontinence which was generally associated with a worsening quality of life score. Continued stress urinary incontinence described as moderate to severe and affecting their quality of life was reported in 7 patients (6.6%). Two patients underwent pelvic surgery for new onset or recurrent pelvic organ prolapse. One patient required a urethrolysis for urinary retention. Overall,91.4% of the patients reported that urinary incontinence is now not a significant impairment to their quality of life.

Conclusions: Similar to our preliminary report on the use of allograft pubovaginal sling, we continue to experience no adverse outcomes with the freeze dried fascia lata sling obtained from the same tissue bank. Our stress incontinence cure rate and denovo urge incontinence rates are similar to those reporting on autologous fascia. The benefits of allograft fascia are shorter operating time and decreased morbidity since harvesting is unnecessary, and consistent durability of the material. There are anecdotal reports of allograft sling failure due to graft autolysis however we did not observe this despite in excess of 100 cases. This might suggest a review of preparation techniques performed by tissue banks involved in such cases.