

SUBURETHRAL SLING MATERIALS: BEST OUTCOME WITH AUTOLOGOUS TISSUES

Hypothesis / aims of study

Our objective was to assess the outcome of suburethral slings by type of material.

Study design, materials and methods

This is a retrospective review of women who underwent a suburethral sling between January 1997 and January 2003 with autograft (fascia lata or rectus fascia), allograft (cadaveric fascia lata) or xenograft (porcine dermis) materials. Decision as to which tissue to use was based upon surgeon's discussion with the patient. Surgeries were performed in a similar manner by one of 3 surgeons. Preoperatively all patients had confirmed urodynamic stress urinary incontinence. Objective failure was defined as urinary leakage with cough stress test. Objective cure was defined as no leakage with a standing cough stress test with at least 200 ml bladder volume. Subjective failure was defined as a positive response to the question "Do you ever leak with activity, cough or sneeze?" on a standardized written pelvic floor questionnaire. Cure required a minimum of 12 months post-operative assessment; failures could be reported at any post-operative time period after 3 months with last observation carried forward (LOFC) as a failure. Data were analyzed using student's T, Wilcoxon rank sum and Kaplan Meier survival tests.

Results

Two hundred and forty-one women were included in this study: 78 received autograft, 80 received allograft and 83 received xenograft. Patients had a mean age of 56 years, median parity of 3 and mean body mass index (BMI) of 30 kg/m². The autograft and xenograft groups were similar for these characteristics; the allograft group tended to be slightly older (p<0.05). Twelve percent of the xenograft group had undergone prior reconstructive surgery as compared to 24% in the other groups (p<0.05); concomitant surgeries were similar amongst all groups (p<0.05). Ten women had prolonged post-operative voiding dysfunction and underwent sling takedown; their data is not included in the following table.

TABLE	Objective failure	Subjective failure	Mean (\pm SD) follow-up in months (range)
Autograft N=74	13% (9/70)	31% (23/74)	23 \pm 14 (12-72)
Allograft N=76	36%* (25/69)	55%** (42/76)	25 \pm 14 (3-60)
Xenograft N=81	46%* (34/76)	53%** (42/81)	17 \pm 6* (5-38)

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p<0.001

**= p<0.01

Interpretation of results

Cadaveric fascia lata and porcine dermis have 3-4 times higher failure rates than autologous tissue when used for suburethral slings.

Concluding message

Autologous tissue offers the only acceptable cure rates when used for suburethral slings in the treatment of stress urinary incontinence.