

# Twelve years' experience with fascia lata autograft to replace complicated vaginal mesh



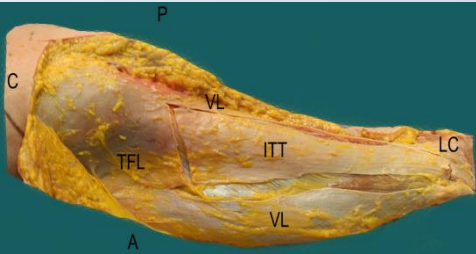
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## ABSTRACT

Removal of the transvaginal mesh (TVM) is shown to be effective in treating symptoms of mesh exposure (6) (7). Replacing the synthetic mesh with autograft to treat both POP and mesh exposure is not thoroughly researched. In this study we used graft from fascia lata.

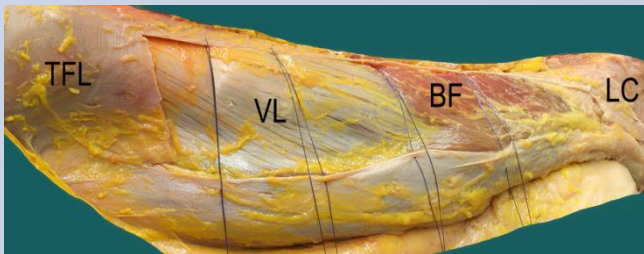
Deep fascia of the thigh is thickened at the iliotibial tract (ITT). C, Cephalad; A, Anterior; LC, Lateral Condyle; TFL, Tensor Fascia Lata; VL, Vastus Lateralis



We report our twelve-year experience with replacing TVM with an autograft from fascia lata, in terms of patient reported recurrence of symptoms, changes in POP-Q examination one year following the procedure, and complications.

## METHODS

**Procedure:** A horizontal 5 cm incision was made at the level of iliotibial tract insertion into the lateral knee. The direction of fibers were identified, the fascia lata was from the underlying tissue. The anterior dissection was carried laterally only to the extent of firm adherence of fascia to the fatty tissue. The surgeon would use extra-long mayo scissors to cut the lateral edges of the fascia while retracting the thigh skin. Cutting the lateral border of the iliotibial band was avoided due to potential leg instability. Another skin incision was made 10cm in length and 10cm cephalad to the first lateral knee skin incision and the fascia strip was delivered through it. The lateral edges of the fascia were brought together using 2.0 PDS sutures two centimeters apart (BF, Biceps Femoris; LC, Lateral Condyle; TFL, Tensor Fascia Lata; VL, Vastus Lateralis)



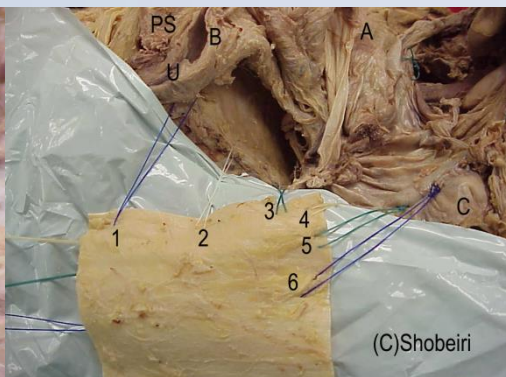
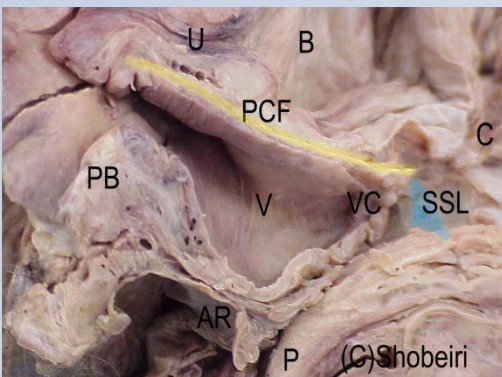
The sutures were tied loosely and a drain was placed over the fascia. C, Cephalad

The graft is fashioned to attach to these structures: Arcus Tendineus Fascia Pelvis (ATFP), vaginal cuff (VC) and sacrospinous ligament (SSL). B and U lie underneath the bladder and the urethra.

The TVM was dissected off in its entirety to the sacrospinous fixation and laterally to the arcus tendineus fascia pelvis and caudal to the vesicourethral junction or further as needed. Sutures were placed along the length of the arcus tendineus, one in sacrospinous, and one or two in the vaginal cuff on either side and were passed through the lateral and cephalad edges of the fascia.

**Data Analysis:** A dataset of all patients who underwent removal of TVM followed immediately by this procedure from 2005 to 2017 was analyzed for changes in POP-Q exam one year after the procedure and self reported complications.

Pubocervical Fascia is shown (right), the graft is placed in this area by placing sutures and tying them (left). AR, Anorectum, B, Bladder, C, Caudal P, Posterior



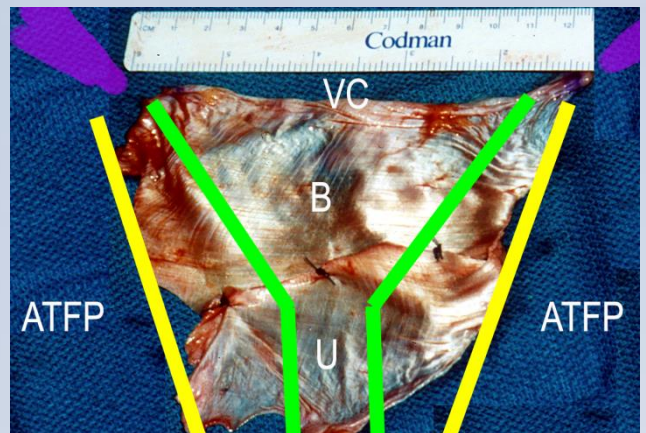
## RESULTS

24 patients were analyzed. Mean age: 57.2 (95% CI 53.2-61.2), mean BMI: 25.8 (95% CI 24.4-27.2), median parity: 2.5. All participants except one were post-menopausal. Twenty two participants (91.7%) were Caucasian. Two patients (8%) reported smoking, seven had hypertension and two had type II diabetes. All participants have had their uterus removed previously. The graft was acquired from the right and the left leg in equal number of patients. Mean estimated blood loss was 262cc (95% CI 215-309cc). Median time to Foley catheter removal was 2 days (mean: 3.2, 95% CI 1.6-4.9). Median time to drain removal was 10 days (mean: 10.9, 95% CI 9.9-12.0). No leg seroma, infection or numbness was detected in the 2 weeks post-op period, while UTI occurred in four of the participants (16.67%, 95% CI: 4.7%-37.4%), one participant reported urge and stress incontinence, one participant complained of inability to void and one complained of urge incontinence. The only other complication was low grade fever in one patient. At 3 months follow-up, four patients (16.67%) complained of urge incontinence and one patient complained of inability to void.

At one year follow-up all but one participant were POP symptom free. Urinary symptoms were resolved in all patients. POP-Q changes is shown in table below:

POP-Q	Mean(±SD) Improvement (cm)	p
Aa	1.25 (±1.07)	<.001
Ba	2.21 (±1.47)	<.001
Ap	.33 (±.96)	.052
Bp	-.12(±.99)	.27
C	2.50(±4.07)	.003
D	N/A	
TVL	-.04(±.99)	.58
GH	.44(±.88)	.011
PB	.50(±1.10)	.018

Table: POP-Q improvement 1 year following procedure calculated using paired t-test



## CONCLUSIONS

Use of fascia lata autograft has the advantage of causing very few side effects while providing acceptable mechanical support for the vaginal wall. Its removal is shown to heal without any event in our study and its autograft is unlikely to shrink or cause erosions. Another benefit of autograft is that in those patients without adequate vaginal epithelium, the fascia can be left uncovered and the vaginal epithelium will crawl over the fascia and seal the wall.

In summary, using fascia lata graft seems to be an effective procedure in treating POP with few symptomatic recurrences and possibly low complication rate.

## REFERENCES

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