

COMPARING VENTRAL AND DORSAL ORAL MUCOSAL GRAFT URETHROPLASTY IN FEMALE URETHRAL STRICTURE

(XUE ET AL., 2025)

BACKGROUND

- Female urethral stricture (FUS) accounts for ~4–8% of BOO.
- Recurrent dilation has poor outcomes.
- OMG urethroplasty is definitive.
- Ventral vs dorsal graft debate continues.

AIM

- Compare outcomes of ventral vs dorsal oral mucosal graft urethroplasty.
- Primary outcome: success rate.
- Secondary: continence, complications.
- Provide pooled evidence for surgeons.

METHODS

- Systematic review per PRISMA.
- Databases: PubMed, Embase, Scopus, WoS.
- 25 studies included (4 comparative).
- Mostly retrospective case series.

ELIGIBILITY

- Adult female with confirmed FUS.
- Oral mucosal graft urethroplasty.
- Excluding congenital, malignancy, radiation.
- Minimum follow-up 6 months.

PATIENT DATA

- Total pooled ~310 patients.
- Ventral: ~160, Dorsal ~150.
- Buccal mucosa most common graft.
- Lingual mucosa used in ~15%.

SUCCESS DEFINITION

- Improved Qmax and symptoms.
- No need of repeat dilation.
- Cystoscopy confirmation.
- Patient satisfaction in few studies.

VENTRAL OUTCOMES

- Pooled success 95.5% (CI 92.8–98.2%).
- Low complications.
- 4 cases stress incontinence.
- Short operative time.

DORSAL OUTCOMES

- Success 92.1% (CI 89.1–95.1%).
- Good support from clitoral bodies.
- 2 cases SUI.
- Excellent graft take rate.

STATISTICS

- No significant difference ($p=0.74$).
- Overlapping CI in forest plot.
- Moderate heterogeneity ($I^2=34\%$).
- Low publication bias.

FOLLOW-UP

- Mean 18–36 months.
- Some beyond 60 months.
- Late recurrences in both.
- Long-term patency 85–90%.

DORSAL ADVANTAGES

- Better mechanical support.
- Lower risk fistula.
- Hidden incision.
- Useful for longer strictures.

VENTRAL ADVANTAGES

- Easier exposure.
- Less risk to sphincter.
- Faster procedure.
- Good for dorsal scarring.

GRAFT MATERIALS

- Buccal: thick epithelium.
- Lingual: thin, pliable.
- Labial for short segments.
- Material not affecting success.

COMPLICATIONS

- Incontinence total 6 cases.
- Donor site pain/numbness.
- No fistula reported.
- UTI (~15%) reported.

CLINICAL INTERPRETATION

- Both >90% success.
- Slight edge ventral but not significant.
- Choice individualized.
- Surgeon experience key.

LIMITATIONS

- Mostly retrospective.
- Small sample sizes.
- Heterogeneous definitions.
- Lack RCTs.

AUTHORS' RECOMMENDATION

- No superiority of either.
- Approach tailored to patient.
- Need multicenter RCTs.
- Report patient outcomes.

CONCLUSION

- OMG urethroplasty gold standard.
- Both ventral and dorsal effective.
- Graft quality vs position.
- Recurrence low.

TAKE-HOME

- Use approach you master.
- Dorsal: stable bed.
- Ventral: simpler access.
- Long-term follow-up essential.