Glansplasty Success in Hypospadias Repair

SUMMARY OF RECENT STUDIES (2023–2025)

Article 1: Lin et al. (2025)

- Topic: Local volume reduction of dorsal glans in small glans patients.
- Finding: Reduced complications (glans dehiscence) and improved cosmesis.
- Limitation: Small cohort, short follow-up.
- Reference: Lin et al., 2025

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Lin et al. (2025): Background

- • Small glans is a risk factor for complications.
- • Traditional techniques often insufficient.
- • Proposed a novel glans volume reduction technique.

Reference: Lin et al., 2025

Lin et al. (2025): Methods

- • Study population: Children with small glans.
- • Intervention: Dorsal glans volume reduction.
- • Compared with control group (no reduction).

Reference: Lin et al., 2025

Lin et al. (2025): Results

- • Lower incidence of glans dehiscence.
- • Improved glans closure and shape.
- • Positive short-term outcomes.

Reference: Lin et al., 2025

Lin et al. (2025): Limitations

- • Small sample size.
- • Limited follow-up duration.
- • Requires multicenter validation.

Reference: Lin et al., 2025

Article 2: Narahari et al. (2024)

- Topic: Risk of glans dehiscence and vascularized flap reinforcement.
- Finding: Flaps reduce dehiscence and improve cosmetic results.
- Reference: Narahari et al., 2024

Reference: Narahari et al., 2024

Narahari et al. (2024): Background

- • Glans dehiscence is a common complication.
- • Adequate tissue coverage is key.
- • Role of vascularized flaps under evaluation.

Reference: Narahari et al., 2024

Narahari et al. (2024): Methods

- • Retrospective/prospective analysis.
- • Compared patients with/without flap reinforcement.
- • Analyzed risk factors including glans size and suture technique.

Reference: Narahari et al., 2024

Narahari et al. (2024): Results

- • Flap reinforcement lowered dehiscence rates.
- • Better functional and cosmetic outcomes.
- • Highlighted importance of glans size.

Reference: Narahari et al., 2024

Narahari et al. (2024): Limitations

- • Heterogeneity of techniques.
- • Lack of standardized reporting.
- • Need for prospective trials.

Reference: Narahari et al., 2024

Article 3: Tanger et al. (2023/24)

- Topic: Standard TIP vs TIP with glans augmentation.
- Finding: Lower complication rate and better cosmetic outcome with augmentation.
- Reference: Tanger et al., 2023/24

Reference: Tanger et al., 2023/24

Tanger et al. (2023/24): Background

- • TIP urethroplasty (Snodgrass) is widely used.
- • Challenges remain in glans closure.
- • Augmentation aims to reinforce glans tissue.

Reference: Tanger et al., 2023/24

Tanger et al. (2023/24): Methods

- • Comparative study: TIP vs TIP + glans augmentation.
- • Assessed complication rates and cosmesis.
- • Short to mid-term follow-up.

Reference: Tanger et al., 2023/24

Tanger et al. (2023/24): Results

- • Lower overall complication rate.
- • Improved cosmetic satisfaction.
- • Especially effective in experienced centers.

Reference: Tanger et al., 2023/24

Tanger et al. (2023/24): Limitations

- • Dependent on surgeon expertise.
- • Limited patient population.
- • Longer follow-up required.

Reference: Tanger et al., 2023/24

Key Takeaways (1/2)

- 1. Adjunct techniques (volume reduction, augmentation) increase success.
- 2. Vascularized flaps reduce risk of dehiscence.
- 3. Precision in suturing and choice of material are crucial.

Multiple references: Lin et al. (2025), Narahari et al. (2024), Tanger et al. (2023/24)

Key Takeaways (2/2)

- 4. Preoperative hormonal therapy may help in select cases (with caution).
- 5. Surgeon experience and specialized centers strongly influence outcomes.

Multiple references: Lin et al. (2025), Narahari et al. (2024), Tanger et al. (2023/24)

Overall Limitations

- • Small sample sizes in most studies.
- • Short follow-up periods.
- • Non-uniform outcome measures.

Multiple references: Lin et al. (2025), Narahari et al. (2024), Tanger et al. (2023/24)

Future Research Directions

- • Multicenter randomized controlled trials.
- • Standardized reporting tools (e.g., HOSE score).
- • Long-term follow-up for functional outcomes.
- • Patient-reported outcome measures.

Conclusion

- • Glansplasty success depends on surgical technique, reinforcement, and patient factors.
- • Recent innovations show promise but require validation.
- • Centralization in experienced centers is key.

Multiple references: Lin et al. (2025), Narahari et al. (2024), Tanger et al. (2023/24)