

Challenges In Hind-foot Reconstruction: A Single-surgeon Experience

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Introduction

- Soft tissue reconstruction of the **hind-foot**:
 - Presents a **reconstructive challenge**
 - Often requires **free tissue transfer**
- The ideal free flap must:
 - Provide **thin & pliable** tissue
 - Achieve **optimal contour**
 - **Withstand weight-bearing**

Methods

- **Retrospective review**
 - **Single surgeon's** experience over a **3-year** period
 - Free tissue transfers for hind-foot reconstruction
- Primary outcomes:
 - **Incidence of complications** (flap failure, hematoma, infection, delayed healing)
 - **Functional** outcomes (amputation)
- Descriptive statistics

Conclusion

- Both fasciocutaneous and muscle flaps can achieve **stable** and **durable hind-foot** reconstruction.
- The choice of flap depends on factors such as defect **location**, presence of **underlying hardware**, and need for **weight-bearing**.
- Despite successful soft tissue reconstruction, the **complication rate** remains **high** & a **below-knee amputation** may still be necessary.

Results

- **20** free tissue transfers: **anterolateral thigh** flap (12/20), **latissimus dorsi** flap (5/20), **vastus lateralis** flap (3/20)
- Most common mechanisms of injury: **motor vehicle accidents** (8/20), falls (4/20), ballistic wounds (4/20).
- Median (IQR) duration from injury to reconstruction: 10 (7-25) days
- **Outcomes: (follow up 2-28 months)**
 - **0** total flap **failures**
 - *Major* complications: **hematoma** (1/20), **soft tissue infection** (3/20), **partial flap necrosis** (1/20)
 - *Minor* complications: **delayed healing** (1/20)
 - **2 below-knee amputations** at 4 and 11 months after reconstruction; others had a **stable** reconstruction

	Pre-operative	Intra-operative	Post-operative
Muscle flap			
Fasciocutaneous flap			
Fascia-only flap			