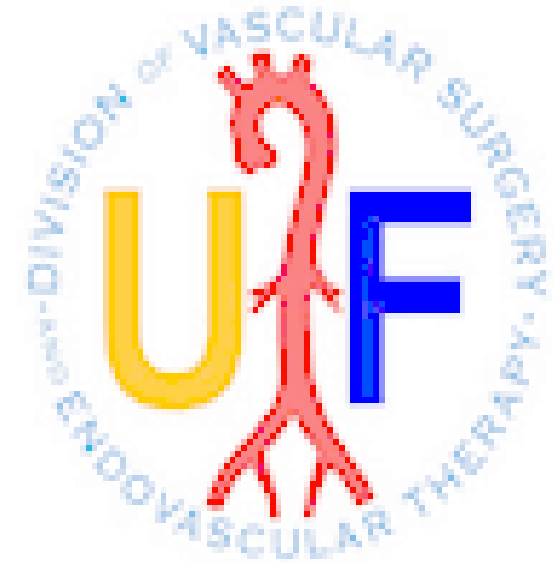


Surgical Management of Infrainguinal Prosthetic Bypass Graft Infections



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Background

- Use of prosthetic conduits for lower extremity bypasses is an alternative in patients without autogenous conduit.
- Infectious complications of prosthetic infrainguinal bypasses can be devastating with significant associated morbidity.
- Literature on risk factors, diagnosis, and management of infected infrainguinal prosthetic bypasses is limited.

Aims

- To review patient characteristics, presenting symptoms and treatment options of infected prosthetic infrainguinal bypass grafts
- To analyze outcomes including mortality, amputation rates, reinfection rates, and graft-related complications

Methods

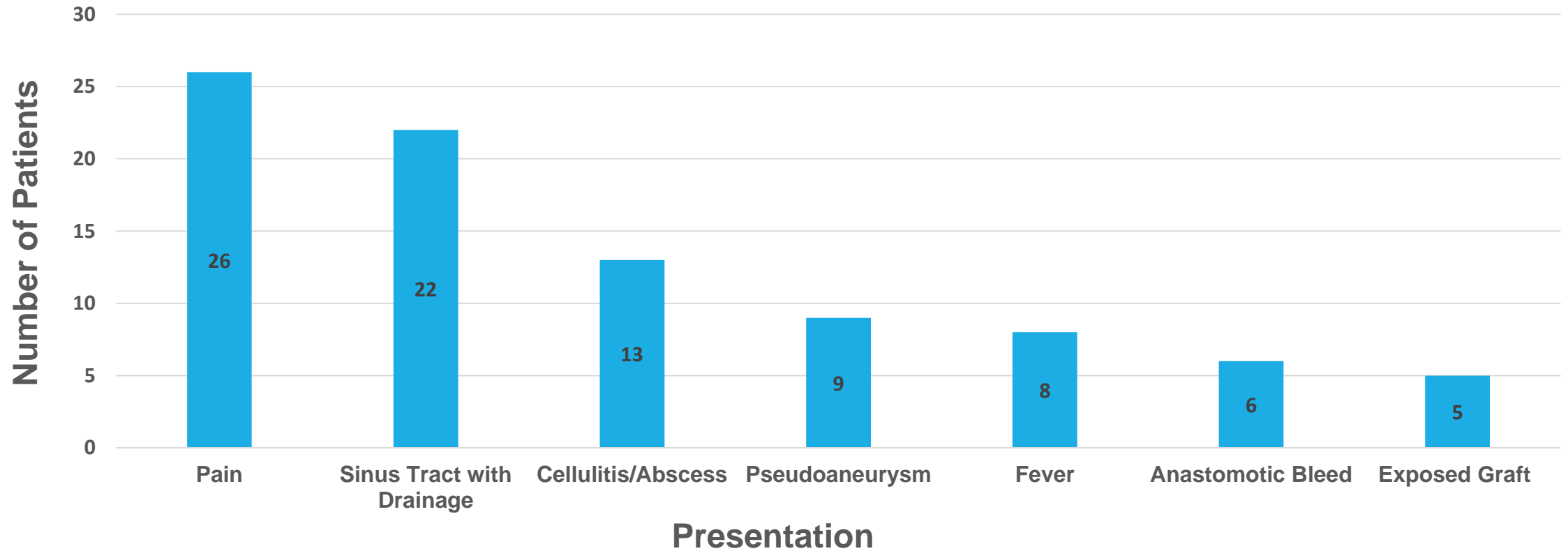
- Retrospective analysis of UF Division of Vascular and Endovascular Surgery's database
- Patients underwent infrainguinal revascularization procedures involving prosthetic conduits between January 2000 and May 2016
- Endpoints
 - Amputation
 - Reinfection
 - Early graft death (<30 days)
 - Late graft related death (> 30 days, <1 year)
- Surgical management and outcomes of patients identified and analyzed

Results: The Patients

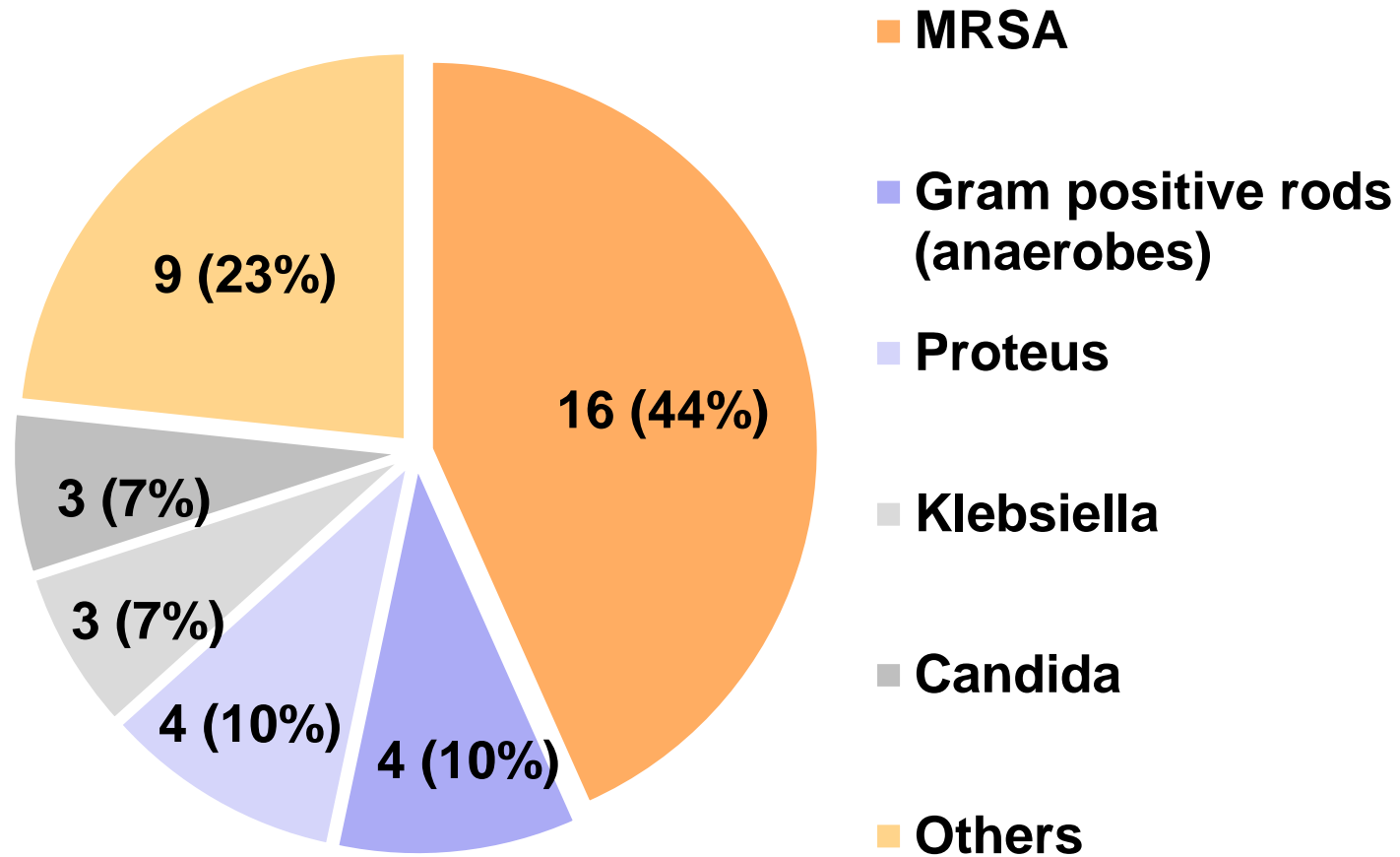
Table 1. 41 patients were identified to have lower extremity prosthetic bypass graft infections.

Patient Demographics	
Mean age	64±8 years
Female	n = 17 (41%)
Patient comorbidities	
	n (%)
Tobacco abuse	38 (93%)
Hypertension	32 (78%)
CAD	24 (59%)
Diabetes	19 (46%)
COPD	11 (27%)
Renal insufficiency	9 (22%)

Results: Presentation



Results: Infectious Agents



Surgical Management

	n (%)
Complete graft explant	38 (92%)
Partial graft explant	3 (8%)

	n (%)
Explant with reconstruction	28 (66%)
Explant with primary amputation	7 (18%)
Explant w/o reconstruction/amputation	3 (8%)
Explant w/o reconstruction (previous amputation)	3 (8%)

Complications

Early Complications	n (%)
Graft Thrombosis	6 (15%)
Acute Renal Failure	5 (12%)
Wound complications	4 (10%)
Death	3 (7%)
Respiratory Insufficiency	2 (5%)

Late Complications	n (%)
Amputation	14 (34%)
Death	6 (15%)
Graft Thrombosis	2 (5%)

Outcomes

OUTCOME	
Early survival (30 days)	38/41 (93%)
Overall survival at last follow-up	32/41 (78%)
Limb salvage rate (30 days)	30/38 (79%)
Overall limb salvage rate	16/38 (42%)
Early morbidity (30 days)	18/41 (44%)
Reinfection	0/41 (0%)
Graft-related complications	6/27 (22%)
Median hospital stay	17 days (2-100 days)
Median follow-up	4 months (0-52 months)

Conclusions

- Infected prosthetic infrainguinal bypass graft is a devastating problem with an early (30 day) mortality rate of 7% and limb loss rate of 21%.
- Overall morbidity remains high with high graft thrombosis rate and subsequent overall limb loss rate.
- Complete explantation of the infected graft with suppressive antibiotics appears protective against re-infection.

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Questions?

