The Open Treatment First for CLTI in the Era of BEST-CLI: It's Not Just for Patients with Good Veins

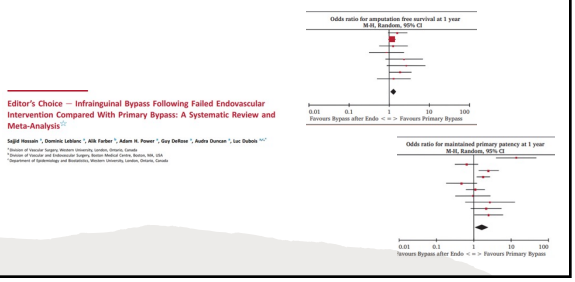
Yana Etkin, MD
Associate Chief of Vascular Surgery
Program Director
Associate Professor of Surgery
Zucker School of Medicine at Hofstra/Northwell

Disclosures

Speakers Bureau:
Cook Medical
Inari

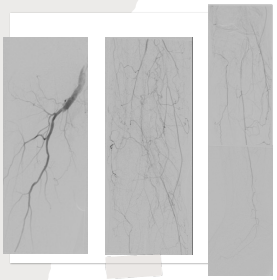
- Endo first for all pts
- Is there a role for open revasc
- Should it be used for salvage only
- What conduit to use

Why not endo first for every pt?



Who would benefit from open-first approach?

- Multilevel disease with infrageniculate popliteal and proximal tibial occlusion



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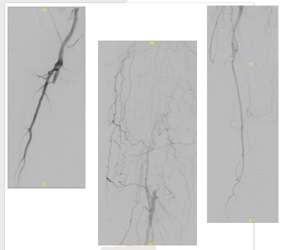
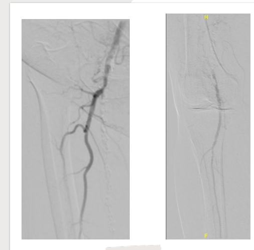
- Extensive femoropopliteal dz with single tibial target vessel



Who would benefit from open-first approach?

- Multilevel disease with infrageniculate popliteal and proximal tibial occlusion
- Extensive femoropopliteal dz with single tibial target vessel
- Disease involving femoral and behind the knee popliteal artery



Limb staging

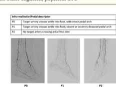
Limb Severity (WIfI)

Table 3 Wound, Ischaemia, foot Infection (WIfI) clinical stage associated with amputation risk and revascularisation benefit

Stage	Major amputation risk at 1 year (estimated %)	Revascularisation benefit score
1	2–3	Very low
2	8–9	Low
3	25	Moderate
4	50	High

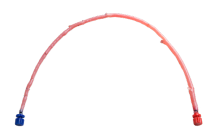
Anatomic stagging (GLASS)

Stage	Estimated PVI outcomes: Technical failure	Estimated PVI outcomes: 1-year LBP	Anatomic pattern
I	<10%	>70%	Short- to intermediate-length FP disease and/or short-length IP disease; no or minimal popliteal disease
II	<20%	50%–70%	Intermediate- to long-length FP disease; may include popliteal stenosis and/or short- to intermediate-length IP disease
III	>20%	<50%	Extensive FP or IP occlusions, alone or in combination with any disease in the other segment; popliteal CTO



Alternative Conduits

- PTFE
- Alternative autologous conduits
  - small saphenous, arm veins
- Nonautologous biologic conduits
  - cryopreserved veins, arterial homografts



Alternative autologous and biologic conduits have worse outcomes than prosthetic grafts for infrainguinal bypass in patients with chronic limb-threatening ischemia

Othman M. Abdul-Malak, MD, Adham N. Abou Ali, MD, Karim M. Salem, MD, Natalie Sridharan, MD, Michael Madigan, MD, and Mohammad H. Eslami, MD, MPH, Pittsburgh, PA

ABSTRACT
Objective: Single segment great saphenous vein (GSV) is the pref autologous conduits (AAC) and nonautologous biologic conduits (traditional prosthetic conduits (PC) in the absence of GSV. In this stu conduits in lower extremity bypasses (LEB) in patients with chronic li
Methods: The Vascular Quality Initiative LEB database from 2003 to patients with chronic limb-threatening ischemia. Primary outcome (MALE), and MALE-free survival at 1 year. Standard statistical method
Results: We identified 22,671 LEB procedures (12,810 GSV, 6002 PC, 19 group, the other conduit patients were significantly older, had more extremity interventions, had a higher rate of infrageniculate bypass ta AAC, and NABC groups had significantly higher rates of postoperative group had a higher 30-day mortality compared with the GSV, AAC, NABC; P = .049). Both PC and NABC had higher 1-year mortality com 10% GSV, 10% AAC; P = .02). In an adjusted Cox regression model (s age, comorbidities, and prior vascular interventions) PC was not sign [HR], 1.41; 95% confidence interval [CI], 1.19-1.67; P < .001) and NABC with an increased risk of loss of primary patency. A similar association CI, 1.15-1.58; P < .001) and NABC (HR, 1.8; 95% CI, 1.53-2.11; P < .001) compared with GSV; PC was not significantly different from GSV.
Conclusions: In the absence of GSV, alternative conduits (autologous with regard to graft patency or MALE compared with PCs. Increased these conduits is not justified based on this study. (J Vasc Surg 2022;

Keywords: Alternative conduit; Loss of patency; Lower extremity bypass; Major adverse limb events; Outcomes

Article Highlights

- **Type of Research:** Retrospective review of prospectively collected Vascular Quality Initiative data
- **Key Findings:** In a study of 22,671 lower extremity bypasses, the use of alternative autologous conduits or nonautologous biologic conduits were associated with increased risk of loss of primary patency (hazard ratio [HR], 1.41 and HR, 1.9, respectively) and increased major adverse limb events (HR, 1.35 and HR, 1.8, respectively) compared with prosthetic conduits.
- **Take Home Message:** Alternative conduits in lower extremity bypass are associated with worse 1 year outcomes compared with prosthetic grafts.

Case series

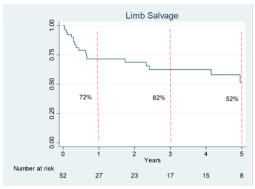
- 52 PTFE bypasses to tibial targets (2015-2024)
- 67% male with average age 72±10yo
- 27% had prior open & 19% endo interventions
- Average follow-up: 41±34months (0-117)

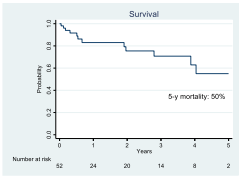
Rutherford stage	
IV	17%
V	46%
VI	37%

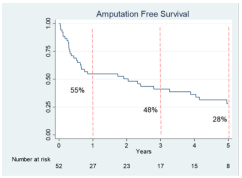
WIfI stage	
2	15%
3	42%
4	43%

Glass Stage	
2	13%
3	87%

19% required reinterventions







Conclusion

- There is still a role for open first approach to limb salvage even in absence of GSV
- Alternative conduits do not offer better outcomes as compared to prosthetic grafts
- Tibial bypass with PTFE is a palliative procedure that can avoid amputations in some patients

Thank you