

VEITH 2024

A balanced view of the value of Atherectomy for treatment of lower extremity lesions: Has it been overutilized and why? When can it be helpful and which device is best?

John R. Laird, MD
Adventist Heart and Vascular Institute
St. Helena, California

Disclosure Statement of Financial Interest

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

AFFILIATION/FINANCIAL RELATIONSHIP	COMPANY
Employment	Medtronic
Scientific Advisory Board / Stock	Syntervention

VEITH 2024

Atherectomy Under Fire

“They Lost Their Legs...”
- The New York Times

- Atherectomy use has increased across all specialties,¹ drawing criticism of overuse.²
- While some claims analyses have demonstrated lower amputation risk following atherectomy versus balloon angioplasty,³ other studies report no clinical benefit.⁴
- There is an impression of limited published data supporting the clinical value of atherectomy.⁴

1. Makhadmeh et al. J Vasc Med Biol. 2017;29:455-460.
2. Moxley J. Vasc Surg. 2023;27:28-34.
3. Kawanishi et al. Endovasc Technol. 2023;18:e1573-461.
4. Pridemore. Adv Vasc Surg. 2023; 48:10.1016/j.avsg.2023.12.154

VEITH 2024

Mid-SFA Lesion HawkOne LX system IN.PACT Admiral DCB 6 x 200 mm Final

VEITH 2024

Plaque Removal

5

VEITH 2024

Device Types

Published Atherectomy Literature through May 2024

305 Published Papers
on atherectomy for endovascular treatment of occlusive or stenotic disease in native, infrainguinal, peripheral arteries

First Author's Reported Affiliation was a Hospital in **97% of Papers***

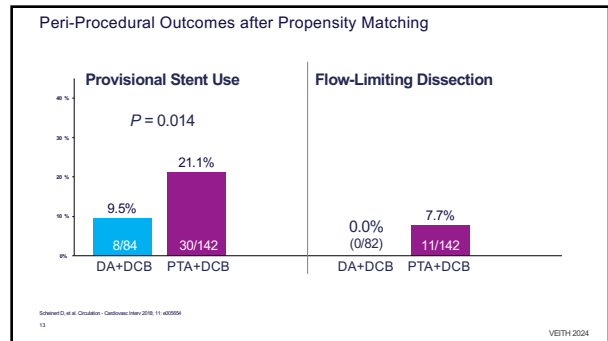
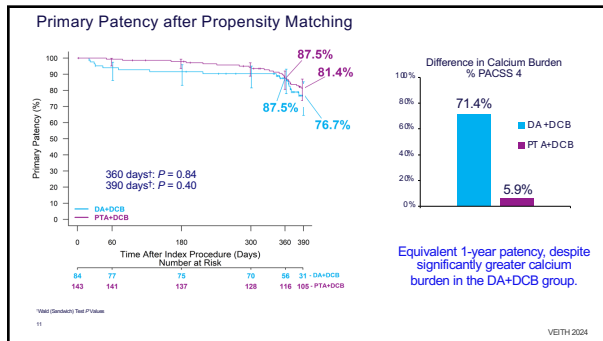
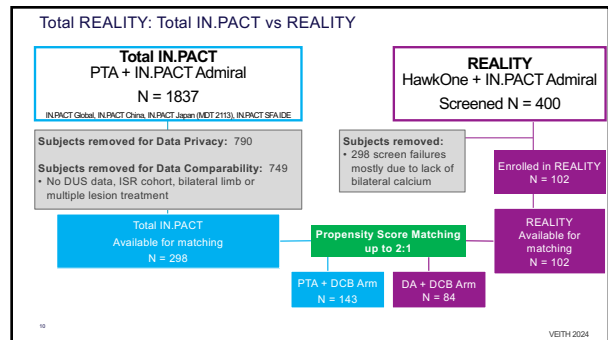
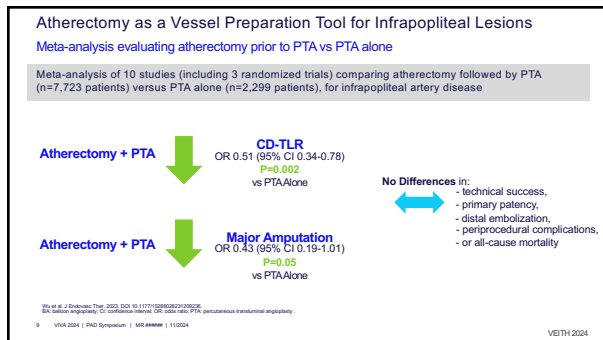
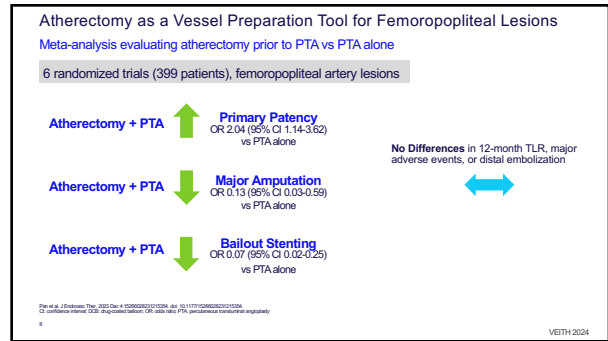
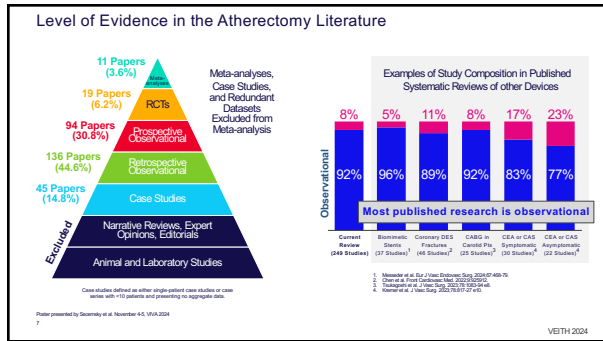
* Excludes 22 IVL papers

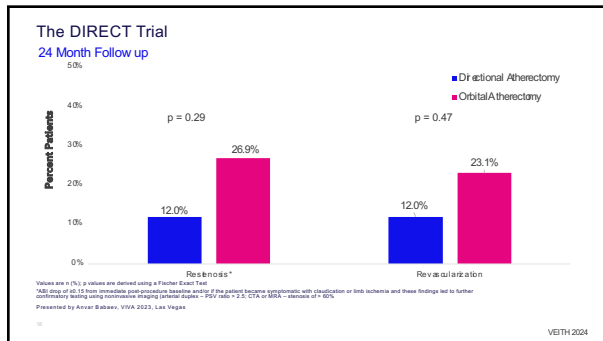
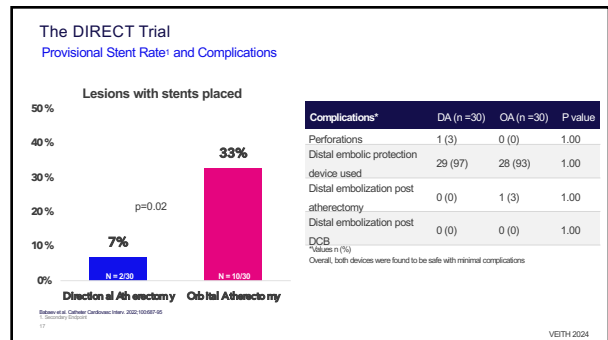
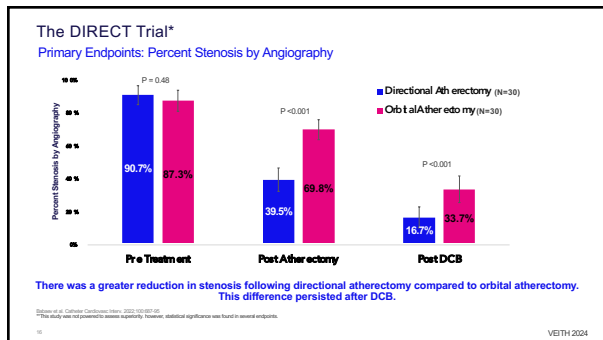
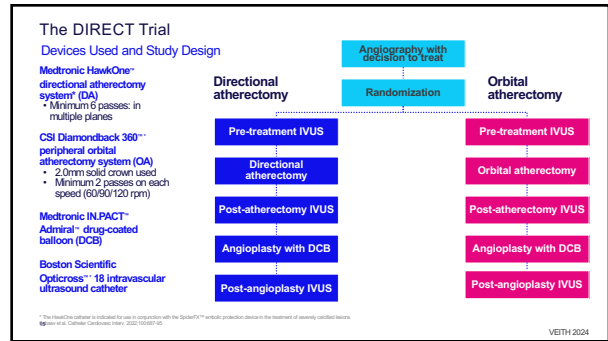
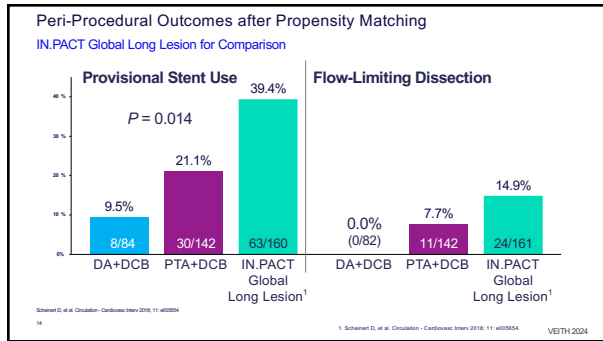
Device Type	Count	Percentage
Directional Atherectomy	119 Papers	36.4%
Rotational Atherectomy	67 Papers	20.5%
Mixed	14 Papers	14.4%
Laser Atherectomy	42 Papers	12.8%
Orbital Atherectomy	30 Papers	9.2%
IVL (Excluded)	22 Papers	6.7%

Public presented by Semerari et al. November 4-5, VAA 2024
© 2024 by the Veith Institute

6

VEITH 2024





Conclusions

- There is a significant body of evidence supporting the safety and effectiveness of atherectomy devices with scientific publications increasing in the last decade as device use increases
- Atherectomy results in reduced need for provisional stenting
- The REALITY and Total REALITY studies demonstrated that Directional Atherectomy is an effective strategy for complex, heavily calcified fem-pop lesions
- The DIRECT Trial shows Directional Atherectomy has better stenosis reduction and lower provisional stent rates compared to Orbital Atherectomy, with both being safe and having minimal complications.