The Concept of Venous Arterialization
How do the Results Compare to Standard Revascularization Techniques?

Miguel Montero-Baker, MD
Division of Vascular and Endovascular Surgery
Michael DeBakey Dept of Surgery
Baylor College of Medicine
Disclosure

Speaker name:

I have the following potential conflicts of interest to report:

☒ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☐ I do not have any potential conflict of interest
Traditional PAD therapies are not a blanket for all...

“Primary amputation, medical management or DVA should be the options considered for severe SAD/MAC patients”

“Notwithstanding the fact that new extreme approaches for managing these patients are currently available, a substantial number of patients are not suitable for treatment, and the rate of major amputation is still high”
Efficacy of Revascularization for Critical Limb Ischemia in Patients with End-stage Renal Disease

S. Yamamoto, A. Hosaka, H. Okamoto, K. Shigematsu, T. Miyata, T. Watanabe

Division of Vascular Surgery, Department of Surgery, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

WHAT THIS PAPER ADDS
This paper presents the treatment outcomes of end-stage renal disease (ESRD) at our center for a series of patients with CLI, the frequencies of which are lower than the frequencies reported in the literature. CLI associated with ESRD is a unique disease and is different from the CLI associated with diabetes and hypertension. This paper should facilitate development of a treatment plan.
Venous Arterialization

Open DVA

Percutaneous DVA

Hybrid Superficial VA (HYSA)
Open DVA

“...1-year primary patency for open DVA ranged from 44.4% to 87.5%; secondary patency was less reported but ranged from 55.6% at 1 year to 72% at 25-month follow-up. Limb salvage rates ranged from 25% to 100%, wound healing occurred in 28.6% to 100% of cases, and rest pain resolved in 11.9% to 100% across cohorts. Major amputation rates ranged from 0% to 70%.”

Hybrid DVA

“...demonstrates <50% patency at 6-month follow-up across cohorts, with wound healing rates ranging from 44% to 46% and limb salvage rates ranging from 46% to 69%.”
The determination is ultimately based on anatomy and presence of GSV

Best suited for HYSA

Best suited for endo
PROMISE I: US study

Wound Status Over Time

- Healed + Healing
- Fully Healed

Follow-up Timepoints (Months)

% of evaluable patients

0% 14% 25% 46% 56% 75% 88% 75%

# evaluable

27 21 20 13 16 8

*At 9 months there were 12 patients healed or healing with 13 evaluable patients at 12 months there were 12 patients healed or healing with 16 evaluable patients
Patient Follow-up

At Index: April 03

April 23

May 4

May 26

June 16

July 27

Sep 17

Dec 28
Conclusions

• Late stage CLTI and No-Option patients experience poor outcomes with traditional PAD therapies

• Primary amputation, medical management or DVA should be the options considered for these patients

• Surgical and Hybrid techniques are technically challenging and incomplete valve effacement may negatively impact reproducibility

• Percutaneous DVA is safe and technically feasible with limb salvage achievable in 77% of patients at 12 months (Limflo study data)
Please reach out for any questions!
@monteromiguel (twitter)
+1(520) 609-4402 (whatsapp)

Pura Vida!