Hybrid Venous Arterialization (HySA): What Is It: How To Do It And When To Use It For No Option CLTI Patients

Miguel Montero-Baker, MD
Michael DeBakey Dept Surgery
Baylor College of Medicine
Houston, TX, USA

Disclosures

• Education/Training: Abbott, BARD, Boston Scientific, COOK, Phillips
• Advisory Board: Abbott, Medtronic, BARD
• Research: BARD, Shockwave Medical, Mercator, Boston Scientific
• Ownership: Thermopeutics, Profusa

Major hurdles for limb salvage

• Comorbidities that directly impact healing
  • CKD
  • DM2
• Swelling
  • Volume overload
  • CHF
• Complex wounds (grade >W2)
  • Heel wounds specially complex
  • Calcification patterns

Two different ways to achieve the goal

• Hybrid Superficial Venous Arterialization (HySA)
  • Requires open surgery (similar to in-situ distal bypass) + endo optimization
  • PRO: Simple surgery. Low cost.
  • CON: Requires a good quality a GSV

• Deep Venous Arterialization (DVA)
  • Can be done open or endo
  • Preferentially endo due to a suboptimal conduit w/poor long term patency
  • Open still requires endo optimization

Lu et al. – EJVES 2006
Step 1 – medial ankle incision

Step 2 – dissection of the medial marginal and accessory veins

Step 3 – creation of a proximal end-to-side anastomosis

Step 4 – Valvulolysis w/flexible valvulotome

Step 5 – Closure

Step 6 – PO 2-3 days Endo valvulolysis + embolization of branches

Open GSV fistula creation (in-situ)

Endo embolization and foot valve lysis
Thank You
@monteromiguel
Mmontero@bcm.edu