

APPROPRIATE ROLE OF SURGICAL TREATMENT FOR FAILURE TO MATURE FISTULAS

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DISCLOSURES

- No financial disclosures

IS THERE A ROLE FOR THE SURGEON IN THE FISTULA THAT HAS NOT MATURED

- There are several successful endovascular procedures that have demonstrated excellent results in getting fistulas to mature
- Is there a role for the surgical intervention to improve outcomes?
- Let's look at options

SURGICAL INTERVENTION

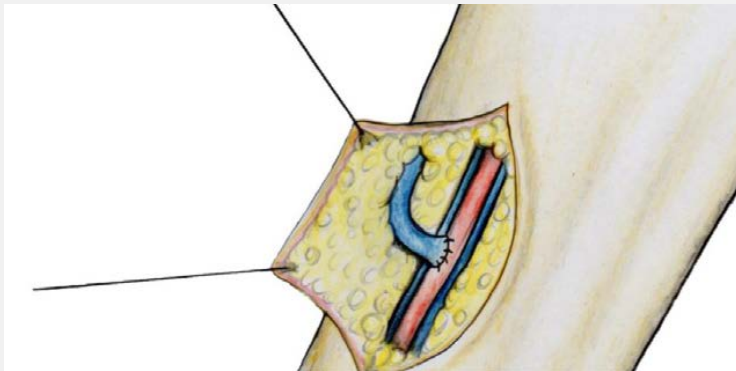
- Revision of arterial inflow
- Revision of venous outflow
- Too deep to cannulate or use

ARTERIAL INFLOW

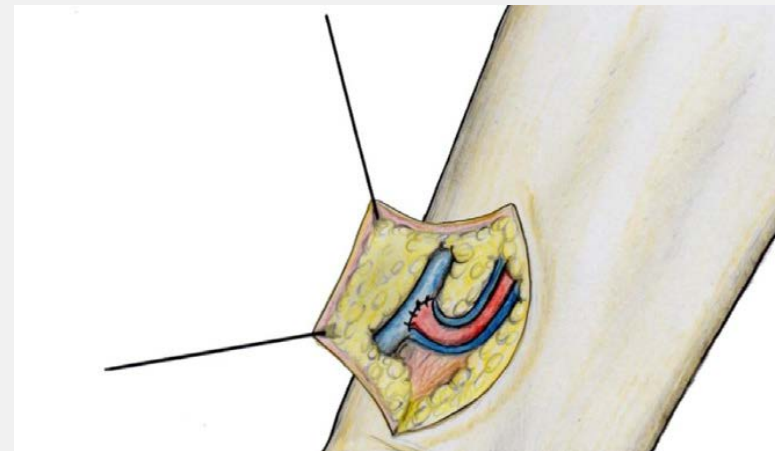
- If inflow is inadequate or recurrence of Juxta anastomotic stenosis- assess option;
 - Revision to higher radial artery or higher brachial artery for improved inflow
 - RADAR procedure for failing radio cephalic fistulas

RADAR PROCEDURE

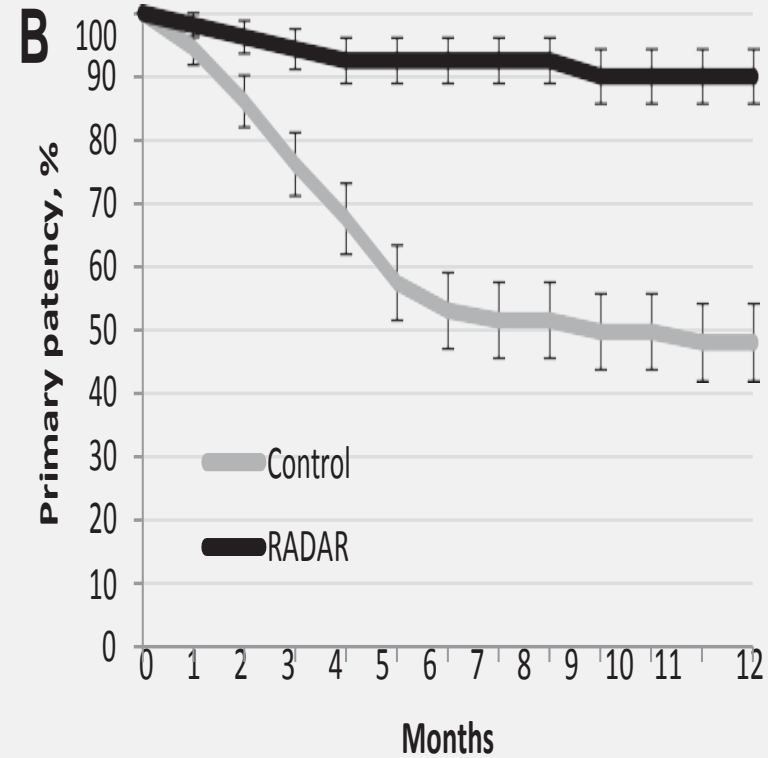
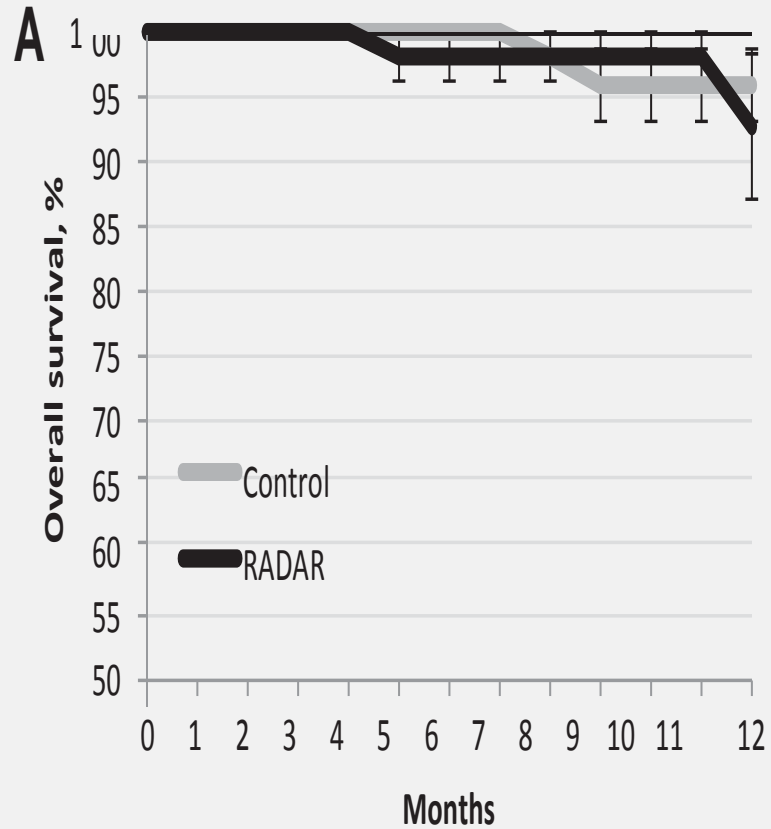
HISTORICAL METHOD



NEW METHOD



IMPROVEMENTS IN OUTCOMES



ARTERIAL INFLOW

- Data is quite impressive and one needs to think about suggesting this idea to your surgeons. Improvement in outcomes and survival of our fistulas should be of prime importance

ARTERIAL INFLOW

- Often, one sees failure for maturation from diseased inflow vessel, especially the radial artery
- Balloon angioplasty is often performed, but one needs to think about a more proximal revision, Proximal radial artery or brachial artery to have a more sustained outcome

VENOUS OUTFLOW

- Reasons for surgical revision
- Long sclerotic vein segment that is not amenable to balloon angioplasty, place where IV was or PICC line
- Incomplete balloon angioplasty with recoil–
- Non inline communication between the cephalic vein in the forearm and the outflow system due to previous occlusion
- Attempting to void stents to keep the system free of metal

REVISION OF VENOUS OUTFLOW VEIN

- Outflow vein needs to be surgically revised to improve maturation of fistula



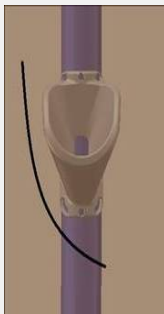
FAILURE TO MATURE DUE TO DEPTH

- Need to superficialize a marginal vein due to depth of vein
- V wing
- Lipectomy, superficialization

VWING: EASY TO IMPLANT



1



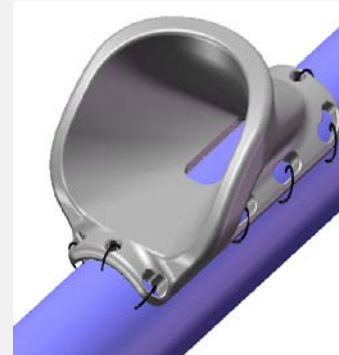
EXPOSE THE VESSEL
VIA INCISION

2



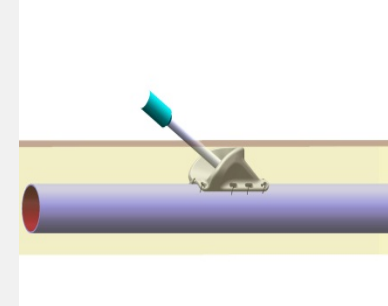
CHOOSE APPROPRIATE
IMPLANT SIZE

3



ALIGN AND SECURE

4



CLOSE INCISION, ALLOW
HEALING, ACCESS FISTULA

VWING FEATURES

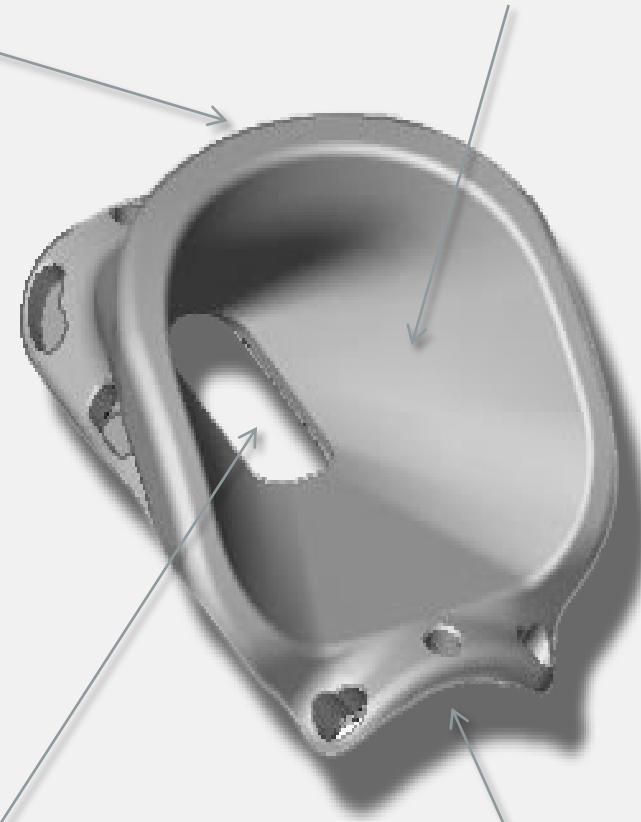


VWING DESIGN FEATURES

- PROVIDES PALPABLE TARGET ON DEEP FISTULAE
- UTILIZES BUTTONHOLE NEEDLE INSERTION TECHNIQUE
- GUIDES STANDARD FISTULA NEEDLE TO SINGLE CANNULATION SITE
- CREATES SECURE ATTACHMENT TO THE OUTSIDE OF THE TARGET VESSEL
- COMMERCIALLY PURE TITANIUM
- ACCESS VESSELS UP TO 15MM DEEP AND 5MM OR LARGER IN DIAMETER

DISTINCT PALPATION RIDGE TO LOCATE THE VWING

BROAD FUNNEL TO GUIDE NEEDLE



DIRECT FISTULA ACCESS: NO VALVE OR SEPTUM

DEVICE IS EXTRAVASCULAR AND SECURED TO THE TOP OF THE VESSEL



SUMMARY

There is a role for surgical intervention in obtaining maturation. It does take a team to get fistulas to mature