FOREARM BASILIC VEIN TRANSPOSITION PROVIDES FUNCTIONAL AUTOGENOUS ACCESS AFTER FAILED IPSILATERAL PROXIMAL AV ACCESS

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NO DISCLOSURES
TO MAKE
1 The order of preference for placement of fistulae in patients with kidney failure who choose HD as their initial mode of KRT should be (in descending order of preference):

- **2.1.1 Preferred**: Fistulae. (B)
  - 2.1.1.1 A wrist (radiocephalic) primary fistula. (A)
  - 2.1.1.2 An elbow (brachiocephalic) primary fistula. (A)
  - 2.1.1.3 A transposed brachial basilic vein fistula: (B)

- **2.1.2 Acceptable**: AVG of synthetic or biological material, such as: (B)
  - 2.1.2.1 A forearm loop graft, preferable to a straight configuration.
  - 2.1.2.2 Upper-arm graft.
  - 2.1.2.3 Chest wall or “necklace” prosthetic graft or lower-extremity fistula or graft; all upper-arm sites should be exhausted.

- **2.1.3 Avoid if possible**: Long-term catheters. (B)
  - 2.1.3.1 Short-term catheters should be used for acute dialysis and for a limited duration in hospitalized patients. Noncuffed femoral catheters should be used in bed-bound patients only. (B)
  - 2.1.3.2 Long-term catheters or dialysis port catheter systems should be used in conjunction with a plan for permanent access. Catheters capable of rapid flow rates are preferred. Catheter choice should be based on local experience, goals for use, and cost. (B)
  - 2.1.3.3 Long-term catheters should not be placed on the same side as a maturing AV access, if possible. (B)
LONG TERM HD ACCESS PREVALENCE

10 YEARS AGO

Long Term Access 2003

NOW

Long Term Access 2013

USRDS REPORT – www.usrds.org
FISTULA FIRST INITIATIVE MAY HAVE BEEN SUCCESSFUL IN REDUCING THE RATE OF AV GRAFT PLACEMENT BUT IT FAILED TO CUT BACK ON THE RATE OF CATHETER USE FOR DIALYSIS ACCESS
The FFBI (Fistula First Breakthrough Initiative) had less impact on reducing catheter use. Accordingly, in May of 2013, the ESRD Network Coordinating Center (NCC) launched the Fistula First Catheter Last (FFCL) Workgroup Coalition project, building on the foundation of the:

CHANGE CONCEPTS and success of the FFBI, but with an emphasis on decreasing the use of tunneled dialysis catheters (TDC) as long-term vascular accesses. The Fistula First Catheter Last (FFCL) Workgroup Coalition is comprised of patients, representatives from the CMS, the ESRD Networks, the renal community and other stakeholders.
IN OUR PRACTICE:
WE STRONGLY PURSUE THE AVF OPTION, ESPECIALLY IN THOSE WHO FAILED ONE OR MORE ATTEMPTS IN THE PAST.
FOREARM BASILIC TRANSPOSITION AVF IS A GREAT, AND OFTEN OVERLOOKED, OPTION IN A CHALLENGING ACCESS PATIENT.
THE FOLLOWING IS OUR EXPERIENCE WITH 7 OF THOSE CHALLENGING ACCESS PATIENTS.
FOREARM BASILIC VEIN TRANSPOSITION AVF

1- FIRST DESCRIBED BY LINSTEDT (SCAN J UROLNEPH 1980;14:207)
   REDESCRIBED BY SILVA ET AL (JVS 1997;26:981-6)

2- PROPER PLANNING IS NECESSARY: DUPLEX EVALUATION OF
   ARTERIAL AND VENOUS ANATOMY

3- AVOID AN EXTREMITY WHERE A TUNNELED CATHETER OR
   PACEMAKER/DEFIBRILLATOR IS PRESENT ON SAME SIDE

4- DO NOT BE SWAYED BY PRESENCE OF A FAILED MORE PROXIMAL
   ACCESS IN THE SAME ARM AS LONG AS THERE IS VENOUS CONTINUITY
   ON U/S PRE-OP MAPPING
TECHNIQUE:

- Forearm straight transposition to radial artery (2 incisions)
- Forearm loop transposition to Brachial artery (3 incisions)
PERCUTANEOUS BALLOON ASSISTED MATURATION MAY BE NECESSARY IN THE POST-OP PERIOD TO HELP TRANSFORM THIS FISTULA INTO A UTILIZABLE CONDUIT FOR HD ACCESS
IDEAL FOREARM BASILIC VEIN
PT# 1
FAILED RC AVF AND UPPER ARM AVG
PT# 2
FAILED RC
AVF AND
UPPER
ARM AVG

Straight Forearm BV Configuration
PT# 3 FAILED AC AVF AND UBV AVF
PT# 4  FAILED AC AVF AND UBV AVF

Straight Forearm BV Configuration
PT# 5  FAILED AC AVF AND UBV AVF

Straight Forearm BV Configuration
PT# 6  THROMBOSED RA, FAILED AC AVF’S AND UPPER ARM AVG

Loop Forearm BV Configuration
PT# 7  CALCIFIED RA AND FAILED UPPER ARM AVG

Loop Forearm BV Configuration
RESULTS:
ALL FISTULAS REQUIRED A BAM IN 3-4 WEEKS POST PLACEMENT
FOLLOW-UP IS 3-24 MONTHS
WITH ONE FAILURE (1 MONTH POST-OP)
LEADING TO 86% PATENCY
6 OUT OF 7 PATIENTS HAVE A FUNCTIONAL FBV AVF
Evaluation of the efficacy of the forearm basilic vein transposition arteriovenous fistula

Hae-Jung Son, MD, Seung-Kee Min, MD, PhD, Sang-Il Min, MD, Yang Jin Park, MD, Jongwon Ha, MD, PhD, and Sang Joon Kim, MD, PhD, Seoul, Korea

(J Vasc Surg 2010;51:667-72.)
CONCLUSIONS

• **FOREARM VEIN TRANSPOSITION** is an underutilized option for autogenous hemodialysis access.

• **VEIN > 3 MM AND CONTINUITY WITH UPPER ARM VEINS** is usually required for a successful one stage basilic transposition.

• **MOBILIZATION OF BASILIC VEIN PAST OLECRANON PROCESS** is required to avoid kinking.

• **PRESENCE OF ANOTHER ONE OR MORE FAILED AV ACCESSES IN THE SAME ARM** is not a contra-indication to this procedure.
TAKE HOME MESSAGE:

when nothing goes right...
go left.

You owe it to Your Patients