Appropriate conversion of non maturing AV fistula to AV graft
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Financial disclosure
× None

Goal
Create a functioning access with Durability
Reduced mortality and morbidity
Population: Patient satisfaction

TDC Data
× Shingarev reported that 35% of CVC’s became infected within the first 3 months of implant
× CVC’s have a 37% 6-month patency
× 25% higher mortality with CVC’s than without a catheter in starting dialysis

Data
× Lok reports in CJASN 2013 higher morbidity and mortality associated with patients starting dialysis with a catheter and this is prevalent in the first year of dialysis.
× Ravani et al in JASN 2013 reports that patients using catheters for dialysis had the highest risk for death, infections and cardiovascular events compared with other vascular access types
Data

- Tim Lee reported survival rates on 173 patients from two centers, that had two or more interventions, either surgical or endo vascular procedures and compared this to fistulas that had less than 2 interventions. Using a Cox regression analysis, the only factor associated with cumulative AVF survival was number of interventions.

Therefore, those fistulas that require several interventions have poor durability or poorer functional patency rates. I think this is an important concept. How much flogging do we do to preserve a Fistula?

Algorithm

- Factors to decide on when to convert a non maturing fistula to AV Graft
  - New Patients: Time to when dialysis will start
    - Every patient needs a game plan and protocol to obtain a functioning access
    - Rigid protocols will allow for a functioning access within 90-120 days
    - Role of a nurse navigator in these patients

Can you deliver a durable access without a TDC or with a TDC?

81% of patients still present with a TDC for their initial dialysis

This information is important in order to obtain a guide to access formation. How long will you wait and how many interventions on your access will you allow?

More interventions to achieve AVF maturation, less durable access created
**Algorithm**

- If patient is already on dialysis via a TDC
  - It is important to understand this point and to strive to reduce the number of catheter dependent dialysis days
  - If patient presents with a TDC already in place for 5 months, Do you spend 4 more months attempting to get a fistula to mature? At what cost to our patient's life?

**Lok Scale and Point System**

Based on 4 Variables and point system:

- PVD 3 points
- Age greater than 65 2 points
- CAD 2.5 points
- Caucasian -3 points
- Starting score/dialysis 3 points

Total score can range from 0-10.5 points

**Answer**

- Lok score should be considered in making your decision about whether to convert to an AV graft
  - This would include the patients age, co morbid conditions, race, overall mortality and gender

Determination of these answers with a defined game plan will help determine the appropriate conversion times for your patient

This will help you decide when to convert to a Graft and when to start looking at other options

**Summary**

- The goal and plan must be set prior to access formation
- A tight protocol schedule will allow for determination of access decision
- Multiple factors are involved with determining when to convert to an AV Graft