EndoAVF Creation: Training Needs from Creation to Cannulation

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Disclosures

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Abbott
BD Bard
Boston Scientific
Cook
iVascular
Medtronic
Merit
Penumbra
Philips
Volcano
W.L. Gore & Associates
Zylox Tonbridge
EndoAVF Creation Training Needs
Pathway begins with exposure…
EndoAVF Creation Training Needs
...and continues through long-term growth via continued learning!

Exposure > Hands-on > Didactic Training > Cases with Support > Cases Solo > Teaching Others

And---continual learning! (Why we're here at LINC)
EndoAVF Creation Training Needs

Exposure

• First time you learn or hear about a device
  • Conference
  • Advertisement
  • Website
  • Mentioned by a colleague
EndoAVF Creation Training Needs

Hands-On

• Two main ways
  • Conferences – most have opportunity to work on models, especially if you reach out in advance
    • Eg CIRSE has specific hands-on sessions
  • Companies themselves
    • Sales often have models, or the company has training courses that include access to the model

• Hands-on for endoAVF includes:
  • Ultrasound mapping
  • Creation
  • Cannulation
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Didactic Training

• Conferences / CME
  • Look to the more specialist conferences for more information
    • Europe: VAS, EVA, EVC
    • Japan: JSDA, JSDT, VAIVT
    • United States: ASDIN, VASA, CIDA

• Company-based
  • Contact the companies for more information
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Cases with Support

• Support from..
  • Individuals who are already experienced
    • Hospital system
    • Outside hospital system
    • Ability to have case support will vary by your geographic location and where you practice (hospital, outpatient facility)
  • Companies – contact them

• Again – don’t forget this is for ultrasound mapping, creation, and cannulation!
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Cases Solo

• After experience with a supported case, you can proceed without one
EndoAVF Creation Training Needs
Cases Solo

Learn and be confident with upper extremity vessels anatomy

- Superficial venous system
- Deep venous system
- Perforator veins
- Arteries

Vascular Anatomy of the Forearm and Arm
EndoAVF Creation Training Needs
Cases Solo

Accurate assessment of the anatomy prior to the procedure

Video-recorded assessment on PACS for pre-procedure review by operator
EndoAVF Creation Training Needs
Cases Solo

• Patient selection according to the IFU

• Have both systems available and be familiar with them

  **Step n1**: assess perforator vein

  If there is a perforator --> high probability (nearly always) Endo-AVF can be done

**Ellipys**: analyze the presence of perforator valves and competing brachial flow

This condition can redirect the flow in the brachial veins --> consider a higher probability of multiple and probably ineffective secondary interventions (PTA, coiling).
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Cannulation

First cannulation under US guidance

US guidance helps to become more confident with the different characteristics of an endo-AVF (more tender than surgical one) and, as a consequence to reduce the risk of fistula injuries.
EndoAVF Creation Training Needs

Conclusions

- Dedicated training program is essential to achieve a good confidence with all new techniques.
- Creation of a team based on the integration between the environments (hospital and community home) and professional medical, nurses according to the stage of the disease.
- Accurate assessment of the anatomy is extremely important.
- Appropriate imaging to access candidacy for endo-AVF creation is required.
- Multidisciplinary meetings and shared decision making are recommended for successful patient screening, procedure and cannulation.
- Specific training for US-cannulation is suggested (nurse training course).
- Periodic, detailed and specific feedback is extremely important to reduce complication rates.
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