Double Ante-Grade Femoral Sheath For Kissing Technique In Infra-popliteal Tibial Angioplasty

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☒ I do not have any potential conflict of interest
Background

• Infra-popliteal arterial occlusive disease is the major cause of ischemic foot especially in diabetic patients.

• Ostial lesions represent a challenge during angioplasty.

• Plaque shift represents a most challenging problem during angioplasty.
Kissing Technique

- Is a good option to overcome plaque shift phenomenon.
- Access should allow two wires and two balloons.
  - **Single access**: antegrade femoral.
  - **Double access**: antegrade femoral and retrograde tibial access.
- **Double antegrade femoral access.**
Double Antegrade Femoral access
Double Antegrade Femoral access

**Advantages:**

- Each port for its wire and balloon.
- Free movement of wires and balloons during the procedure.
- Use of any wires 035,018,014
- Simultaneous kissing balloon angioplasty
- PTA of all tibial vessels at the same time.
- Avoid use of a large sheath or retrograde access.
Double Antegrade Femoral access

Disadvantages:

• Fear of puncture site complication.
• It could not be used if thrombolytic therapy is indicated.
• It is contraindicated in obese persons.
Technique

- Local anesthesia.
- Puncture sites design.
- Insertion of two 6Fr sheath or better use of 4 Fr sheath.
- Use of each for wiring two tibial vessels whether endoluminal or subintimal.
- Kissing balloons at the tibial bifurcation, ant. tibial-tibio-peroneal, posterior tibial and peroneal.
Technique

• Complete tibial angioplasty distally to the foot.
• Procedure can be repeated easily to get the best results.
• Completion angiography with wires in and after wire removal.
• Sheath removal with 15 minutes compression.
Case Example
with demonstration of the technique
Early Clinical Experience

Ten cases have been done using this technique.

Clinical success shown by:

• Restoration of pedal pulse
• Disappearance of rest pain
• Healing of ischemic ulcers
• Minor amputation with healing of amputation stump
• No major amputation

Complications:

• Two patients developed small hematoma.
• 6 months follow up: Redo- tibial angioplasty after one month with successful result was done by single antegrade sheath access for one patient.
Conclusion

• Double Antegrade Femoral access is a useful technique.
• It facilitates kissing technique in ostial tibial lesions.
• It helps free passage of wires and balloons during angioplasty.
• The concern of puncture sites complications is minimal.