Tips and tricks for optimal angiographic imaging of BTK and foot arteries

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DISCLOSURE:

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• Abbott Vascular: Consultant
• Angiodroid: Consultant
• BARD: Consultant
• BBraun Consultant
• CID/ALVIMEDICA: Consultant
• COOK: Consultant
• Boston Scientific: Consultant
• MicroMedical Solutions Consultant
• TERUMO: Consultant
A correct Imaging starts with...

• Correct patient Position;
• Foot and leg position;

We need to Standardize angiographic studies and train our brain recognizing and looking for potential anatomical variations in order to be effective in reaching the foot avoiding dangerous recanalization attempts on muscular and cutaneous branches.

Foot orientation and Fixation is really important. Try to spend a little bit of time to achieve it.

We will try to perform the same correct RX projections and same contrast medium or CO2 injections and 2D perfusion angiograms as well.
Radiological Projections: CALF = TIBIAL Arteries

External Oblique Projection

Latero-Lateral Projection
Calf: Normal Tibial Arteries
Calf: Towards Anatomical Variations

Difficult Anatomy

After Recanalization and PTA
Calf: Anatomical Variations

- High Origin of Anterior Tibial: 5%
- High Origin of Posterior Tibial: 4%
- Short TibioPeroneal Trunk: 3%
- Trifurcation: 2%
Foot: Rx Projections

Correct projection criteria
20 ml
120 mm Hg
Distal distribution pattern: 3150 studied legs

94.8% Standard distribution: “balanced circulation”
1.9% Posterior dominant PER artery

2.4% Anterior dominant PER artery

0.9% “Single” PER artery
Dominant dorsalis pedis artery

Dominant lateral plantar artery

Balanced circulation
Absence of plantar arch.

The dorsalis pedis is the predominant artery for the I and II toe.

The lateral plantar artery, is the predominant artery supplying the III, IV and V toe.
Foot: Always Working in Two projections: Lateral and PA
Value of Perfusion Angio: relates with healing rates
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