Affordable (home-made) tools and tricks for crossing complex lesions (SFA and BTK)

Dr Luis Morelli Alvarez MD, MSC
Vascular Surgeon
San José, Costa Rica
Disclosure

Speaker name:
Dr Luis Morelli Alvarez, MD, MSC

I do not have any potential conflict of interest to report
Complex lesions: CTO

Represents a significant portion of lesions in PAD

Fail to recanalization lesions >10 cm length with standard GW-balloon technique is up to 20-25%*

Variables to consider

Operator experience

Grade of Calcification

Presence of an adequate reentry zone

Affordable meaning...

Affordable = Cheap  ?

Affordable = Sustainable  ?

How to achieve it? Which technique?
Acquire good bases
High probabilities to success
Easily reproducible
Keep it simple, reasonable cost
Antegrade approach whenever possible:

- Comfort to the interventionist
- Improves pushability and procedure control
- Keeps GW torque close to 1:1 even in hostile CTO conditions
- Allows to complete revascularization all the way down to the foot
- Most of the time no need for additional expensive devices and techniques!!!
Technique: Step by Step
Invented and Adopted from Prof. Lanfroi Graziani
Preparation of Materials
Angiography: 19 Gauge needle at CFA
Ensure Access

GW PFA

Sheath CFA
CTO > 20 cm long SFA lesion
Foot Arch Reconstruction
Through DP artery
Foot arch revascularization = Dramatic Clinical Response
Combined access and techniques for complex devices
Popliteal CTO with BK proximal disease
No success to reentry with one access

Second Access: Retrograde DP

GW
Improving GW stiffness
No success to reentry: Above nor Bellow

Selective Reentry: Balloon Puncture with Cutted V18 directed by Angled BER cath

V18-Ber cath
Antegrade Approach

Balloon retrograde approach

45° LAO
45° RAO
Success to reentry: Direct flow to the foot
Mistakes to avoid

• Insist on an expontaneous reentry beyond the distal reconstitution
Can lead to outflow damage with ischemia worseness

• Work on a single view can give us false information of our position
Allways confirm with a 45* contralateral view
CONCLUSIONS

• Success in complex CTO manage requires patience, adequate instruments, combination of techniques and experience.

• Affordable is not a cheap procedure, is a sustainable program with high rates of success

• 97% rates of success even for TASC C and D lesion has promoved endovascular therapy as first line treatment in CLI*

• Alternatives techniques and devices are selective use and probably less frequent as experience in basic techniques is obtained

Evidence....

- Femoral-anterograde access! in 90% of the cases:
- Even for ostial SFA lesions that requires stenting
- Published results are more than satisfactory (993 patients and 1,191 lesions)*

* Faglia, EJVES 2005;29:620-627
Thank you!

: lmorelli@clinicabiblica.com