MY ATK ORBITAL AHERECTOMY CASE

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School of Medicine, Patras University Hospital, GR
Conflicts of interest

- Consulting/honoraria ABBOTT, GORE
- Research grants Medalliance, RONTIS
## Endovascular tools

<table>
<thead>
<tr>
<th>Step</th>
<th>Wire</th>
<th>Ather</th>
<th>PTA</th>
<th>BMS</th>
<th>DCB</th>
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Plaque removal and modification | vessel wall compliance | vessel recoil, plaque resistance, severe dissections
Evolution of vessel treatment

DOTTER dilators, 1964

Balloon catheters

Plaque sanding
Case presentation

- 67-year-old male
- Smoker, NIDDM, CABG x 2
- Statin, Clopidogrel 75md od
- Left ABPI = 0.77
- Wound debridement
- Iliac arteries patent
Lesion access
Orbital atherectomy 2.0mm
Atherectomy result
Physiology: Pressure-wire FFR

Functional Assessment
FFR detects ischemia

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FFR Basics, Practice, Pitfalls – Dr Mort Kern
FFR assessment post-CSI
Balloon angioplasty 6-8 Atm
FFR assessment
Run-off angiogram
Orbital atherectomy 1.25mm
Conclusions

1. Orbital atherectomy for plaque debulking & modification of moderately-to-severely calcified lesions

2. Different crown sizes for above- and below-the-knee arteries

3. No need for filter protection because of small size of sanding particulate product
Access & crossing

Lesion preparation

Drug application

Stent or scaffold?

SFA stenosis

Plaque removal?

YES

Debulking atherectomy

NO

Residual stenosis?

YES

Drug-coated balloon

NO

Recoil or stenosis?

YES

Drug-eluting scaffold

Calcium popliteal

NO

Balloon angioplasty

SFA occlusion

Lesion crossing?

YES

Mimetic stent

NO

Bypass surgery
Strategy for CLTI

1. Patient with CLTI, candidate for revascularization
2. Obtain high quality angiographic imaging including ankle and foot
3. Define the target artery path (TAP)
4. Grade the femoropopliteal (FP) segment (Fig 5.2)
5. Grade the infrapopliteal (IP) segment (Fig 5.3)
6. Look up the overall GLASS stage (Table 5.3)
7. Define the preferred revascularization strategy by integrating patient risk, limb severity (WIfI) and anatomy (GLASS) according to the PLAN concept (Section 6)
BASIL-2 (Lancet 2023)

Median AFS interval 3.3 years in the vein bypass versus 4.4 years in endovascular
Atherectomy prior to DCB?

OPTIMIZE-BTK

OAS+DCB vs. DCB Alone in BTK Lesions

Study Details:
- Pilot study
- Prospective, 1:1 Randomization
- Calcified below the knee lesions
- Study devices:
  - Peripheral Orbital Atherectomy System (Cardiovascular Systems, Inc.)
  - Lutonix® 014 Drug Coated Balloon (C.R. Bard, Inc.)
- Evaluable subject: subject who met all of the inclusion and none of the exclusion criteria (angiographic criteria confirmed by the Core Lab) and alternative (non-study devices) or post-adjunctive treatment(s) were not required during the index procedure
- 2-year follow-up

12 months

Primary patency

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p=0.076

Thank You