From Predilation to Debulking: What, When and Why to Add More Upon Plane DCB

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Disclosure

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I have the following potential conflicts of interest to report:

- Consulting and or study support: Bard, BBraun, Biotronic, Medtronic, Spectranetics
Is There Any Role for Pre-Dilatation?

Thunder: 0% predilatation
Pacifier: 14% predilatation
In.Pact SFA: 96.4% predilatation

Good results
Is There Any Role for Pre-Dilatation?

- Protect DCB surface especially in occlusions
- Potentially reduce need for post-dil + stent
- BUT: not mandatory to enhance efficacy + risk: mismatch
Is There Any Role for Pre-Dilatation?

- 0.014 wire + non hydrophilic surface of DCBs: need of pre-dilatation for DCB placement
- In case of diffuse calcium: vessel preparation for better drug uptake?
Calcification
Calcification

- Atherectomy
- Cutting Balloon
- Schockwave
Atherectomy – Definitive AR
Atherectomy – Definitive AR

Possible Reasons:
1. Study design
2. Device considerations
   - Tissue of drug uptake cut away
   - Other devices (like orbital) better address Calcium?
Cutting Balloon

- AngioScore
  Non-slip
  More opt. lumen expansion at lower balloon pres.
Cutting Balloon + DCB
Cutting Balloon + DCB, follow-up (6,12,18 mo)
Lithoplasty® for Vascular Therapy

- Familiar Balloon-based endovascular technique
- “Front-line” balloon strategy (.014”compatible)
- Ultra-low pressure
- Designed to:
  - Disrupt both deep & superficial calcium pre-dilation
  - Normalize vessel wall compliance
  - Minimize effect on healthy tissue

Lithotripsy waves travel outside low pressure balloon, Disrupt deep, superficial calcium pre-dilation

Schockwave
Schockwave
Schockwave
DCB in Calcified Lesions

Conclusion

• Use of DCBs in calcified lesions still a challenge
• There is a role for vessel preparation - BUT
  - What is the best system?
    Hawk? Orbital? Cutting? Schockwave?

• Studies in calcified arteries with DCB as control group mandatory
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