Character And localization Of Arterial calcification Pathologically: What Are The Implications For Endo Treatments

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Atherosclerotic Plaque Progression in Peripheral Arteries

Intimal calcification in peripheral arteries

Medial calcification in peripheral arteries

The relationship between % stenosis and Calcification

Disclosure

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

Consultant: Cook, and W.L. Gore.

Employment in industry: No


Owner of a healthcare company: No

Stockholder of a healthcare company: No
**Prevalence of Intimal/Medial Calcification in the Lower Limb Arteries in Patients With and Without DM**

![Graph showing prevalence of intimal and medial calcification](image)

**Prevalence of Calcification in Human Femoropopliteal Arteries**

![Graph showing prevalence of calcification](image)

**Calcification Grade**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Intimal</th>
<th>Medial</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a.</td>
<td>67.6%</td>
<td>90.2%</td>
</tr>
<tr>
<td>1b.</td>
<td>25.7%</td>
<td>8.1%</td>
</tr>
<tr>
<td>2a.</td>
<td>6.3%</td>
<td>1.5%</td>
</tr>
<tr>
<td>2b.</td>
<td>0.4%</td>
<td>0.2%</td>
</tr>
<tr>
<td>3a.</td>
<td>67.6%</td>
<td>90.2%</td>
</tr>
<tr>
<td>3b.</td>
<td>25.7%</td>
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</tbody>
</table>

**Inverse relationship between the primary patency and late lumen loss with calcium groups after 12 months of follow up**

![Graph showing inverse relationship](image)
Calcifications of peripheral arteries affect stent outcomes

Freedom from target lesion revascularization

Orbital Atherectomy System (OAS) for peripheral vessels

Lithoplasty by Shockwave for peripheral vessels

Summary

- Intimal atherosclerosis calcification is frequently observed in lower extremities and is more common in above the knee.
- Medial calcification is observed in lower extremities, and calcification is especially high in diabetic and renal failure patients.
- Calcified lesions need a dedicated device that either cracks or removes calcified areas in order to achieve adequate vessel expansion.

Acknowledgments

Hiroyuki Jinnouchi, MD
Atsushi Sakamoto, MD
Yu Sato, MD
Sho Torii, MD
Anne Cornelissen, MD
Salome Kuntz, MD
Liang Guo, PhD
Robert Kutyz, MS
Russ Jones
Abebe Atiso, HT
Jinky Beyer
Lila Adams, HT
Frank D Kolodgie, PhD
Aloke V Finn, MD

DCB (IN.PACT)

Dake MD et al. Circulation 2016;133(15):1472-83