COMPARE-Pilot RCT:

1-year results of a randomised comparison of RANGER DCB vs. IN.PACT DCB in complex SFA lesions

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Disclosure
Dierk Scheinert, MD

Advisory Board /Consultant:
Abbott, Biotronik, Boston Scientific, Cook Medical, Cordis, CR Bard, Gardia Medical/Allium, Medtronic, TriReme Medical, Trivascular, Upstream Peripheral Technologies
Study objective

First Head-to-Head RCT to compare two different Paclitaxel coated balloons (with different coatings and different paclitaxel dose density) in the treatment of patients with symptomatic femoropopliteal peripheral arterial disease.

Investigational device:
Ranger Paclitaxel Coated PTA Balloon Catheter
(Acetyl tri-\textit{n}-butyl citrate coating, Paclitaxel dose 2\textmu g/mm\textsuperscript{2})

Control device:
IN.PACT Admiral or IN.PACT Pacific Drug Eluting Balloon
(Urea coating, Paclitaxel dose 3.5\textmu g/mm\textsuperscript{2})
Study Set-up

- Investigator Initiated Trial (IIT)
- Principal Investigator: Prof. Dierk Scheinert
- Study sponsor: University of Leipzig
- Funded through a research grant of Boston Scientific

- Independent monitoring with 100% source data verification
- Independent corelab for angio and duplex
- Clinical events committee
Study Design

- Prospective, multicenter, randomized trial
- Randomization 1:1
- Phase 1: Pilot Study (150 patients)
- Phase 2: Extension (up to 414 patients) for testing of a formal non-inferiority hypothesis
- Stratification according to lesion length
- Follow-up clinical visits at 6, 12, 24 months

- Protocol pre-specified interim analysis of the first 150 patients (COMPARE Pilot) after 12 months of follow-up
  - Presented today
Study Sites COMPARE Pilot (n=15)

- Angiologikum Hamburg-Dr. Sixt
- Diakoniewerk Halle – Dr. Hübner
- Herz- und Gefässzentrum Bad Bevensen – Dr. Euringer
- Franziskus KH Berlin- Dr. Brechtel
- Jüdisches KH Berlin-Dr. Schröder
- St. Gertrauden KH-Dr. Langhoff
- KKH Torgau – Dr. Maiwald
- KKH Eilenburg – Dr. Ali
- Universität Leipzig-Prof. Scheinert
- Uniklinik Dresden-Prof. Weiss
- KH Dresden-Friedrichstadt-Dr. Stelzner
- Medinos Klinik Sonneberg – Dr. Thieme
- Klinikum Karlsbad-Langensteinbach – Prof. Blessing
- Herzzentrum Bad Krozingen-Prof. Zeller
- Romed Kliniken Rosenheim – Prof. Tejo
Key In- and Exclusion criteria

- Symptomatic PAD Rutherford 2-4
- Stenosis (>70%) or occlusion of the SFA or proximal popliteal artery
- De-novo or restenotic lesions (no ISR)
- No severe calcification
- Lesion length up to 30 cm
- Stratification in 3 groups
  - <=10 cm
  - >10cm and <=20cm
  - >20cm and <=30cm
- At least one patent BTK outflow vessel to the foot
Primary efficacy endpoint:

- Patency rate after 12 months
- Defined as absence of clinically driven TLR (due to symptoms and drop of ABI of ≥ 20% or > 0.15 when compared to post-procedure) or restenosis with PVR > 2.4 evaluated by Duplex Ultrasound

Primary safety endpoint:

- Composite of freedom from device and procedure-related death through 12 months post procedure as well as freedom from both target limb major amputation and clinically-driven target vessel revascularization
Selected Secondary endpoints (assessed at 6, 12, 24 mo):

- TLR rate
- Duplex-defined restenosis
- Sustained clinical improvement: improvement in the Rutherford classification of one class in amputation and TVR free surviving patients
- Walking capacity assessment by Walking Impairment Questionnaire (WIQ)
Patient flow diagram

150 Patients Randomized

Ranger™ DCB
74 patients
- 1 withdrawal
- 1 death

6-months visit
68/72 patients: 4 missed
66 ultrasound readings
- 5 withdrawals

12-months visit
66/67 patients: 1 missed; 64 ultrasound readings

IN.PACT™ DCB
76 patients
- 2 withdrawal

6-months visit
71/74 patients: 3 missed
66 ultrasound readings
- 3 withdrawals

12-months visit
65/71 patients: 6 missed; 60 ultrasound readings
Baseline Demographics n=150

<table>
<thead>
<tr>
<th></th>
<th>RANGER DCB (n=74)</th>
<th>IN.PACT DCB (n=76)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, y</td>
<td>68.6±9.2</td>
<td>68.9±9.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Male gender</td>
<td>44 (60%)</td>
<td>53 (70%)</td>
<td>0.2</td>
</tr>
<tr>
<td>Weight, kg</td>
<td>77.9±15.8</td>
<td>79.1±14.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Prior myocardial infarction</td>
<td>11 (15%)</td>
<td>5 (7%)</td>
<td>0.2</td>
</tr>
<tr>
<td>Coronary artery disease</td>
<td>21 (29%)</td>
<td>21 (28%)</td>
<td>0.9</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>12 (16%)</td>
<td>8 (11%)</td>
<td>0.3</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>50 (68%)</td>
<td>57 (75%)</td>
<td>0.3</td>
</tr>
<tr>
<td>Hypertension</td>
<td>65 (88%)</td>
<td>68 (90%)</td>
<td>0.8</td>
</tr>
<tr>
<td>Renal Insufficiency</td>
<td>12 (16%)</td>
<td>14 (18%)</td>
<td>0.6</td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td>0.4</td>
</tr>
<tr>
<td>Current</td>
<td>32 (43%)</td>
<td>38 (50%)</td>
<td></td>
</tr>
<tr>
<td>Previous</td>
<td>27 (37%)</td>
<td>20 (26%)</td>
<td></td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>25 (34%)</td>
<td>28 (37%)</td>
<td>0.7</td>
</tr>
<tr>
<td>Claudication (RC 2-3)</td>
<td>69 (93%)</td>
<td>71 (94%)</td>
<td>0.6</td>
</tr>
<tr>
<td>Critical limb ischemia (RC 4)</td>
<td>5 (7%)</td>
<td>5 (6%)</td>
<td></td>
</tr>
</tbody>
</table>

Data are given as mean±SD or number (%).
<table>
<thead>
<tr>
<th>Lesion Characteristics</th>
<th>RANGER DCB (n=74)</th>
<th>IN.PACT DCB (n=76)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target lesion length, mm</td>
<td>117.4±100.4</td>
<td>122.3±91.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Diameter stenosis, %</td>
<td>82.7±17.5</td>
<td>84.2±18.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Reference vessel diameter, mm</td>
<td>4.9±0.6</td>
<td>5.0±0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Minimal vessel diameter, mm</td>
<td>0.8±0.9</td>
<td>0.8±1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Total occlusion</td>
<td>29 (39.2%)</td>
<td>34 (44.7%)</td>
<td>0.5</td>
</tr>
<tr>
<td>Total occlusion length, mm</td>
<td>110.9±95.1</td>
<td>94.8±87.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Prox. popliteal involvement</td>
<td>14 (18.9%)</td>
<td>11 (14.5%)</td>
<td>0.2</td>
</tr>
<tr>
<td>Lesion calcification</td>
<td></td>
<td></td>
<td>0.7</td>
</tr>
<tr>
<td>None</td>
<td>8 (11.1%)</td>
<td>8 (10.7%)</td>
<td>0.7</td>
</tr>
<tr>
<td>Mild</td>
<td>21 (29.2%)</td>
<td>18 (24%)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>1 (1.4%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>Moderately severe</td>
<td>25 (34.7%)</td>
<td>33 (44%)</td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>17 (23.6%)</td>
<td>16 (21.3%)</td>
<td></td>
</tr>
<tr>
<td>0-1 patent run off vessels</td>
<td>20 (26.9%)</td>
<td>25 (32.9%)</td>
<td>0.6</td>
</tr>
</tbody>
</table>

* Per angiographic core lab assessment.
Data are given as mean±SD or number (%).
# Procedural Outcomes* n=150

<table>
<thead>
<tr>
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<th>IN.PACT DCB (n=76)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bailout stent placement</td>
<td>19 (25.7%)</td>
<td>17 (22.4%)</td>
<td>0.6</td>
</tr>
<tr>
<td>MVD postprocedure, mm</td>
<td>3.6±0.6</td>
<td>3.7±0.8</td>
<td>0.6</td>
</tr>
<tr>
<td>Diameter stenosis postprocedure, %</td>
<td>25.8±11.6</td>
<td>26.0±14.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Residual stenosis &gt; 30%</td>
<td>26 (35.1%)</td>
<td>29 (38.2%)</td>
<td>0.7</td>
</tr>
<tr>
<td>Dissection</td>
<td>70 (92.1%)</td>
<td>70 (94.6%)</td>
<td>0.7</td>
</tr>
<tr>
<td>Type A/B, n (%)</td>
<td>54 (77.1%)</td>
<td>44 (62.8%)</td>
<td>0.1</td>
</tr>
<tr>
<td>Type C-F, n (%)</td>
<td>16 (22.9%)</td>
<td>26 (37.2%)</td>
<td></td>
</tr>
<tr>
<td>Complications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embolic event</td>
<td>2 (2.7%)</td>
<td>1 (1.3%)</td>
<td></td>
</tr>
<tr>
<td>AV-Fistel (local)</td>
<td>5 (6.8%)</td>
<td>5 (6.6%)</td>
<td></td>
</tr>
<tr>
<td>Target Vessel Perforation</td>
<td>1 (1.4%)</td>
<td>1 (1.3%)</td>
<td></td>
</tr>
</tbody>
</table>

* Per angiographic core lab assessment.
Data are given as mean±SD or number (%).
Primary efficacy endpoint: Patency rate*

*Patency: defined as absence of clinically driven TLR or restenosis with PVR>2.4 evaluated by duplex ultrasound scan; both per core lab assessment.
Summary

• Head-to-head comparison of Ranger DCB vs. IN.PACT DCB in femoropopliteal interventions

• Complex real world lesion subset with lesion length ~12cm and proportion of CTO`s ~40%

• Excellent efficacy at 1 year of both tested DCB in the interim analysis of first 150 randomized patients

• Similar primary patency of the low-dose Ranger DCB (2µg/mm²) compared to the Inpact DCB (3.5µg/mm²) during the 1 year surveillance period

• Recruitment of full study cohort (414 patients) will be finished Q2/2018
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