A Novel Approach to Coronary Bifurcation Disease

Advanced Bifurcations Systems
Mother-Daughter Platform for Complete and Provisional Bifurcation Stenting

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Shortcomings of current technologies

- Side-branch access is not guaranteed (Crush, Culotte, Provisional…)
- Inadequate tissue coverage (provisional T)
- Excessive stent coverage / thrombosis / tissue injury (Crush, Culotte)
- Mal-orientation / apposition of main vessel stent (Side-hole stents)
- Wire-wrap (double-wire systems)
ABS Mother-Daughter™ Platform

• What’s ideal: Delivery of a stent, scaffolding any bifurcation regardless of the variables (angles, sizes, plaque location, etc.).
QuickTime™ et un décompresseur H.264 sont requis pour visionner cette image.
LCx-OM

QuickTime™ et un décompresseur codec YUV420 sont requis pour visionner cette image.
LCx-OM
Tortuous distal RCA, PDA-PL
Ovalized segment of the stent just above the carina
Initial Results

• 10 patients - 3 centers worldwide (Sau Paulo, Brazil; Ahmedabad, India; Caracas, Venezuela)

• 7 consecutive successful bifurcation stent (MD-Bi) implantations

• 3 provisional systems (MD-P)
## Preliminary Results

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<thead>
<tr>
<th></th>
<th>MD-Bi</th>
<th>MD-P</th>
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<tbody>
<tr>
<td></td>
<td>(Full stenting)</td>
<td>(Provisional)</td>
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<tr>
<td></td>
<td>9 Month F/U</td>
<td>3 Month F/U</td>
</tr>
<tr>
<td>† TVR</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>†† MACE</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Angiographic re-stenosis</strong>:</td>
<td></td>
<td></td>
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<tr>
<td>Mother branch</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Daughter branch</td>
<td>2/7</td>
<td>-</td>
</tr>
<tr>
<td>Carina</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

† Target vessel re-vascularization
†† Major adverse coronary event
* 5/7 have had follow up angiography.
Conclusion

• The ABS bifurcation stenting system is a novel platform designed to reproducibly permit stenting in bifurcation lesions regardless of branch angulation or plaque location, in a short and simple procedure.
Conclusion

• This first-in-human implant study provides preliminary evidence of feasibility and short-term efficacy. Additional long-term and larger scale studies are needed to further validate this unique technology.
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Thank you
Initial Results – Animal Studies

• Coronary Bifurcation Lesions Treated with the Novel Advanced Bifurcation Systems™ Dedicated Stent: Animal Experience

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Initial Results – Human Abstract

• Coronary Bifurcation Lesions Treated with the Novel Advanced Bifurcation Systems™ Dedicated Stent: Preliminary Results of the Prospective, Multicenter First-in-Man Experience

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  ¹Cedars-Sinai, Los Angeles, CA; ²Instituto Dante Pazzanese de Cardiologia, Sao Paulo, Brazil; ³Lifecare Institute of Life Sciences and Research, Ahmedabad, India
Provisional LAD-Diagonal, MD-P
Bench Testing
Porcine Heart with 3 bifurcation stents
Lossy compression - not intended for diagnosis
Daughter Catheter Pullback

Lossy compression - not intended for diagnosis
System Assembly at the Carina
Final Angio

Lossy compression - not intended for diagnosis