Precision dissection repair: How to use the Tack Endovascular System®

Michael K. W. Lichtenberg MD, FESC
Conflict of Interest - 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.

<table>
<thead>
<tr>
<th>Affiliation/Financial Relationship</th>
<th>Company</th>
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<tbody>
<tr>
<td>1. Honoraria for lectures:</td>
<td>CR Bard, Veniti, AB Medica, Volcano, Optimed GmbH, Straub Medical, Terumo, Biotronik, Veryan</td>
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<td>2. Honoraria for advisory board</td>
<td>Veniti, Optimed GmbH, Straub Medical, Biotronik, Veryan, Boston Scientific</td>
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<td>3. Participation in clinical trials:</td>
<td>Biotronik, CR Bard, Veryan, Straub Medical, Veniti, TVA Medical, Boston Scientific, LimFlow, Terumo</td>
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<td>4. Research funding:</td>
<td>Biotronik, Boston Scientific, Veryan, Veniti, AB Medica</td>
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Tack Endovascular System®
Precise dissection repair with minimal metal left behind

Tack® Implant
- **Adaptive Sizing™** adapts to ATK and BTK anatomy
  - ATK: 2.5 – 6.0mm & BTK: 1.5 – 4.5mm
- Nitinol with gold RO markers for visibility
- Unique anchoring system prevents migration
- 6mm deployed length

Delivery System
- ATK: 6F/0.035” - 6 implants pre-loaded on a single catheter
- BTK: 4F/0.014” - 4 implants pre-loaded on a single catheter
- Designed for highly accurate (≤1mm) deployment

CAUTION: Investigational device.
Tack Endovascular System is limited by Federal (United States) law to investigational use. Not approved for sale in the United States.
Tack Endovascular System is CE Mark authorized under EC Directive 93/42/EEC.
Adaptive Sizing™ is a trademark of Intact Vascular, Inc.
Tack Endovascular System® and Tack® are registered trademarks of Intact Vascular, Inc.
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<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>0</td>
<td>No dissection</td>
</tr>
<tr>
<td>A</td>
<td>Minor linear radiolucency with dye injection with rapid clearance</td>
</tr>
<tr>
<td>B</td>
<td>Appearance of a “double-lumen” lucency which rapidly clears</td>
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<tr>
<td>C</td>
<td>Contrast extravasation outside the lumen which persists after dye clears from the lumen</td>
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<tr>
<td>D</td>
<td>A spiral dissection with persistence staining after contrast clears from the vessel</td>
</tr>
<tr>
<td>E</td>
<td>A persistent filling defect within the lumen</td>
</tr>
<tr>
<td>F</td>
<td>A dissection leading to complete occlusion of the distal vessel</td>
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Case Presentation (BTK)

- 78 y old male patient
- D II infection left (Rutherford V)
- Ischemic rest pain
- CVRF: Diabetes, CKD
- TBI: 0.5 left
Baseline Angiograms
Retrograde Wire Access
Wire Externalized / antegrade wiring
PTA: 2mm x 150mm; 120 sec @ 10 atm
Slow flow...
Post-PTA Angiogram

Images: Klinikum Hochsauerland
TACK Implantation
Dissection Resolved to None
(core lab adjudicated)
Final Angiogram: No Dissection (core lab)
Noncomplex Lesion* Moderate Ca**

Complex Lesion (Severe Ca++, Total Occlusion)

Thrombus

POBA / DCB

aggressive vessel prep

good result?

dissection?

BMS / DES

able to cross lesion w/wire only

atherectomy, cutting balloon, crosser, adventitial drug delivery, lithoplasty, etc

Tack
1st National Interdisciplinary CLI Congress
June 13th – 14th, 2019
Düsseldorf, Germany

Course Directors

Dr. med. Michael Lichtenberg
Prof. Dr. med. Giovanni Torsello
Prof. Dr. med. Markus Steinbauer
Prof. Dr. med. Thomas Zeller

„CLI congress is an interdisciplinary live course which provides an update on endovascular and operative therapy strategies for the most challenging vascular disease."

www.cli-kongress.de
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