



University Heart Center  
Hamburg

GERMAN  
AORTIC CENTER  
HAMBURG



Live-cases from



**AORTIC** | **2017**  
**LIVE** | October 23–24, 2017  
Hamburg, Germany

**Tilo Kölbel, MD, PhD**

German Aortic Center  
Dpt. of Vascular Medicine  
University Heart Center Hamburg

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE  
CONTROVERSIES & UPDATES  
IN VASCULAR SURGERY

**JANUARY 25–27 2018**  
MARRIOTT RIVE GAUCHE & CONFERENCE CENTER  
PARIS, FRANCE [WWW.CACVS.ORG](http://WWW.CACVS.ORG)





# Disclosures



- \* Research-grants, travelling, proctoring speaking-fees, IP, royalties with Cook.
- \* Consultant with Philips
- \* Research, consulting, royalties with Vascutek.
- \* Shareholder Mokita Medical



## Operators 2017:

- Semih Buz
- Lennard Conradi
- Sebastian Debus
- Christian Detter
- Gabrine ElKhoury
- Amando Gamba
- Robert Hammerschmidt
- Stephan Haulon
- Michael Jacobs
- Tilo Kölbel
- Axel Larena
- Bijan Modarai
- Kyriakos Oikonomou
- Karin Pfister
- Ulrich Schäfer
- Jürg Schmidli
- Konstantinos Tsagakis
- Nikolaos Tsilimparis
- Axel Unbehaun

## Topics:

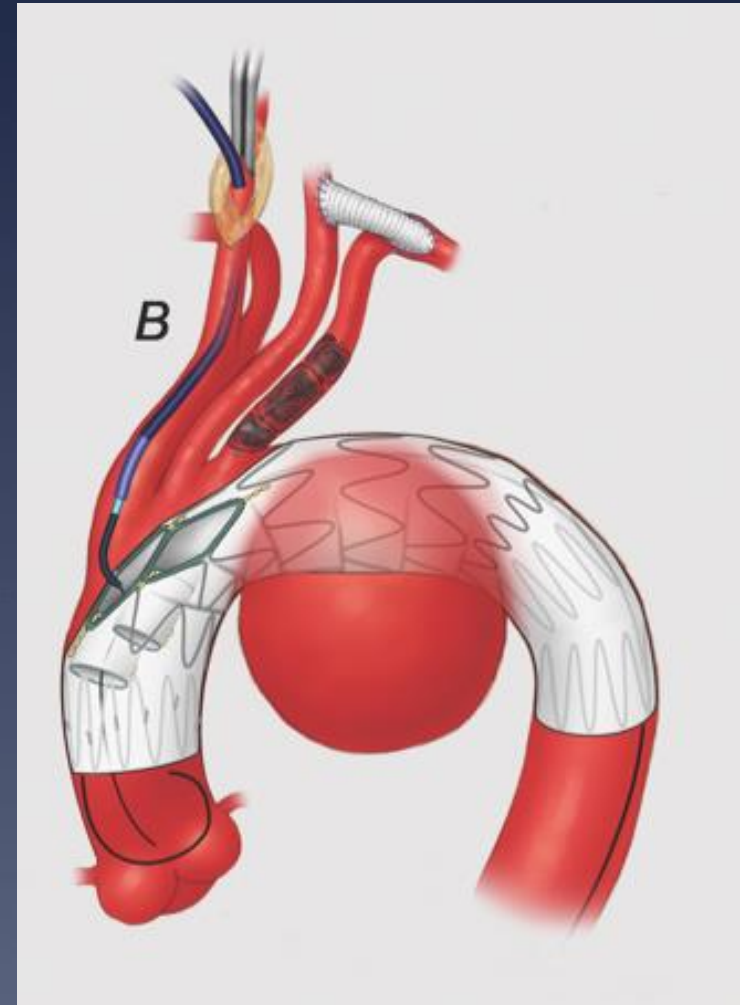
- Aortic Valve
- Aortic Arch
- Thoracoabdominal Aorta
- Infraarenal Aorta

# Branched Arch Endograft



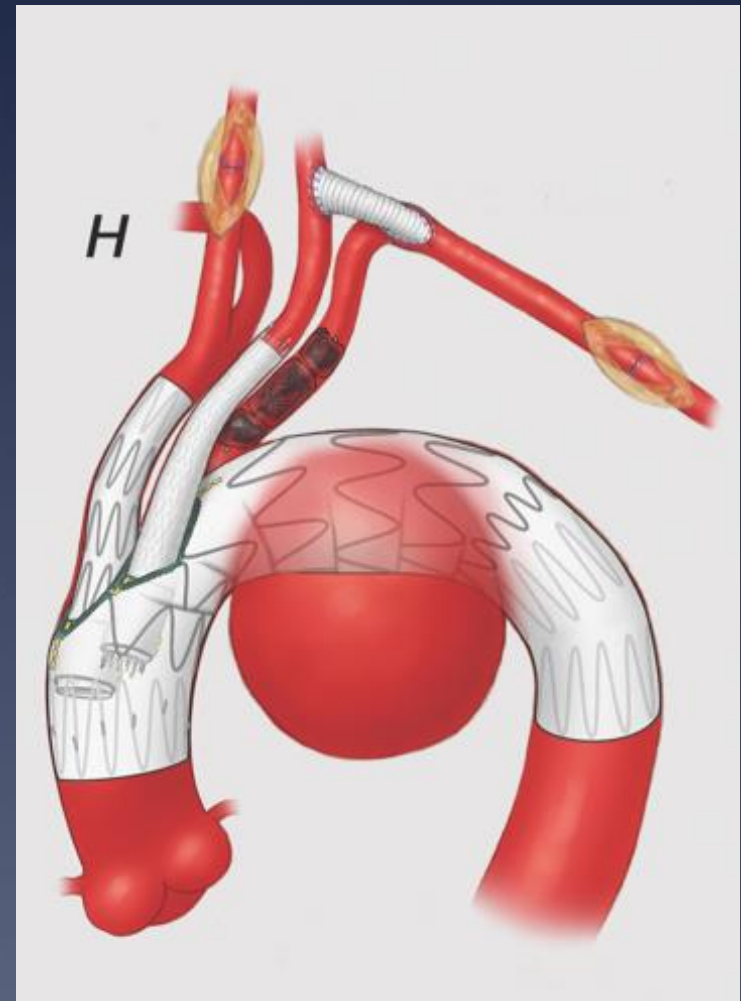


- \* Two stage repair:
  - \* 1. LCCA-LSA bypass
  - \* 2. Branched repair:
- \* Transfemoral access for the main-graft
- \* RCCA-cutdown for IA-branch
- \* Left brachial puncture for LCCA-branch and LSA-plug

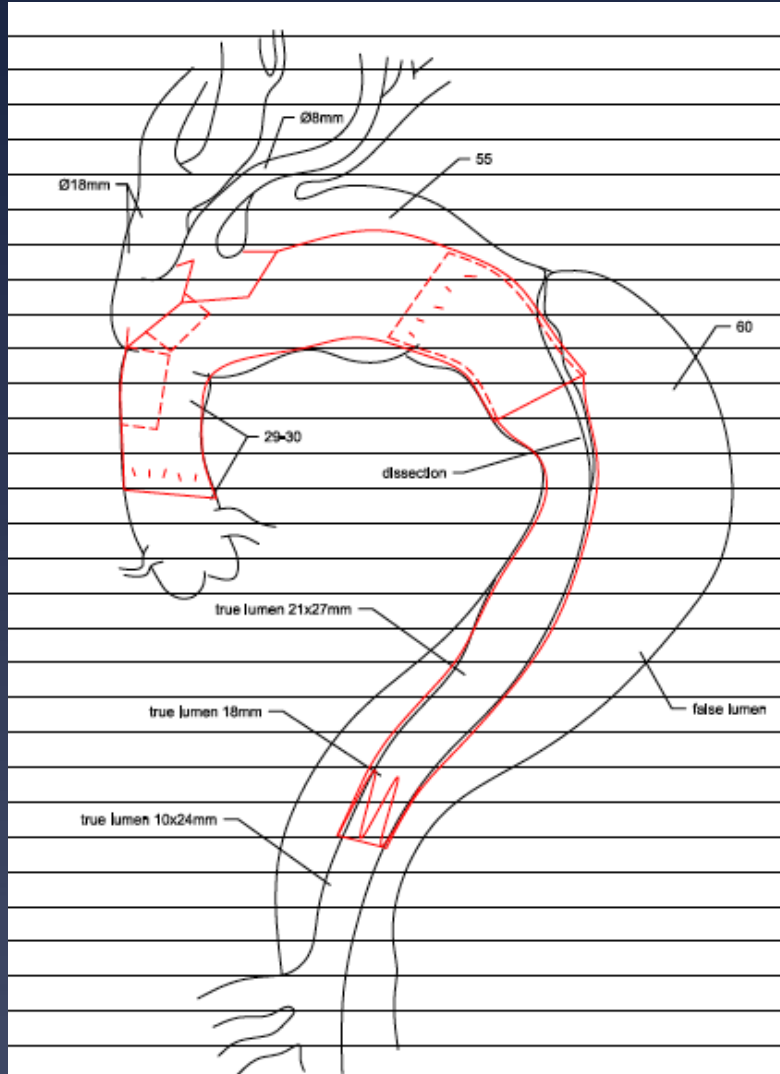




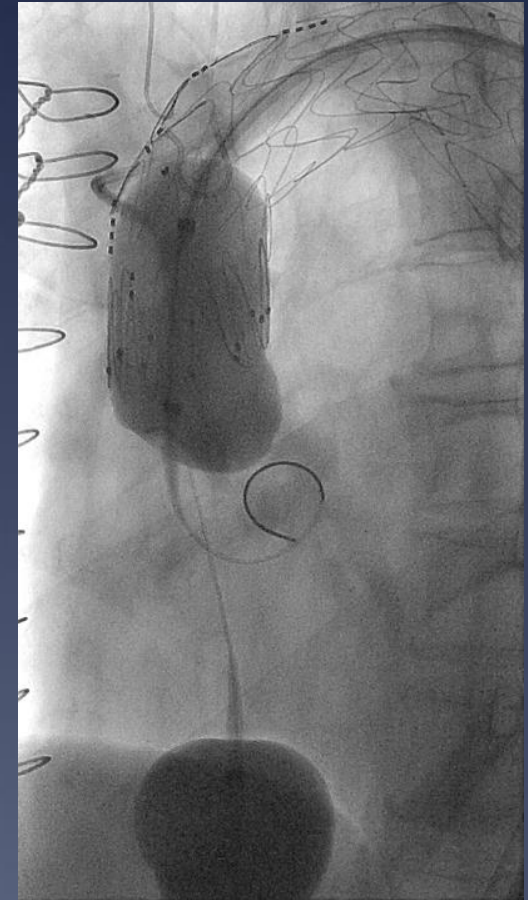
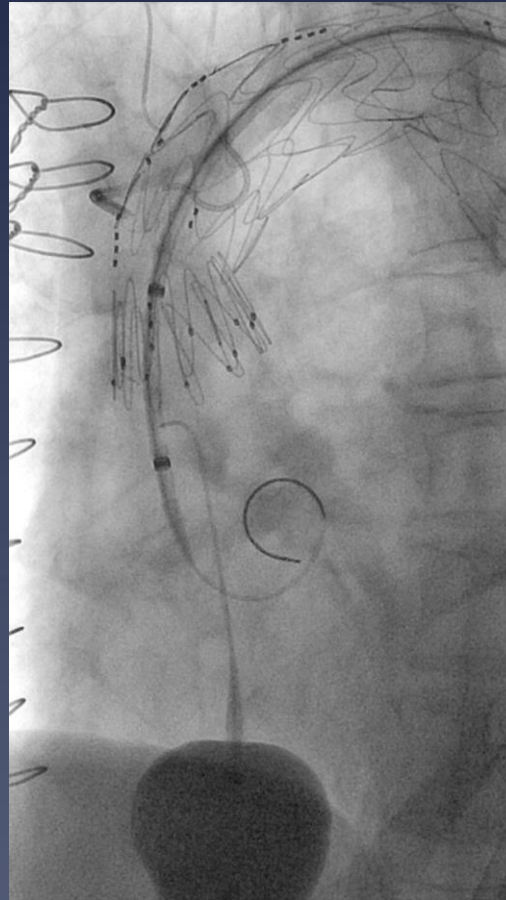
- \* Precurved self-orienting device
- \* LV-wire position
- \* Cardiac output-reduction:
  - \* IVC balloon-occlusion
  - \* Rapid ventricular pacing
- \* Zenith-limb for IA
- \* Fluency for the LCCA
- \* Plug-occlusion for LSA



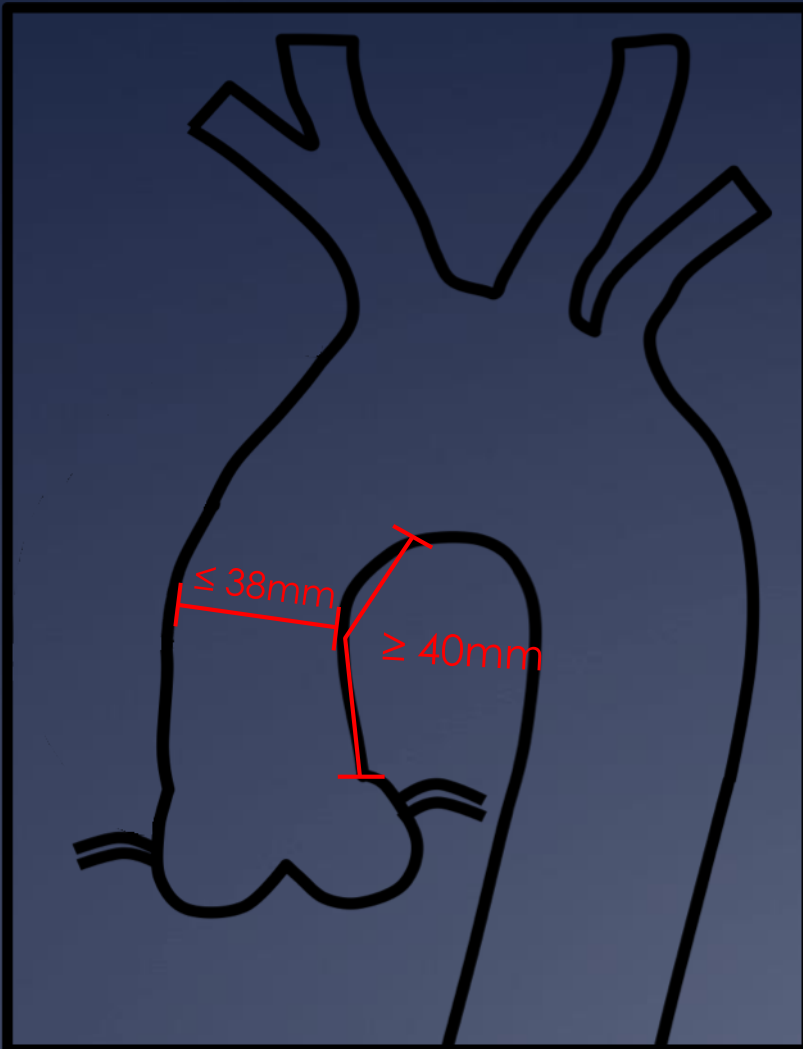
# Deploy further proximal



# Balloon Ascending before bridgingstent







- \* Diameter  $\leq$  38mm
- \* Length  $\geq$  40mm
- \* Proximal landing zone  $\geq$  20mm
- \* Innominate diameter  $\leq$  20mm
- \* Appropriate access vessels
- \* No significant aortic regurge
- \* No mechanical aortic valve
- \* No dissection of branch-vessels



# AORTIC LIVE | 2017

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## CASE 09 | BRANCHED TEVAR WITH COOK ZENITH BRANCHED GRAFT

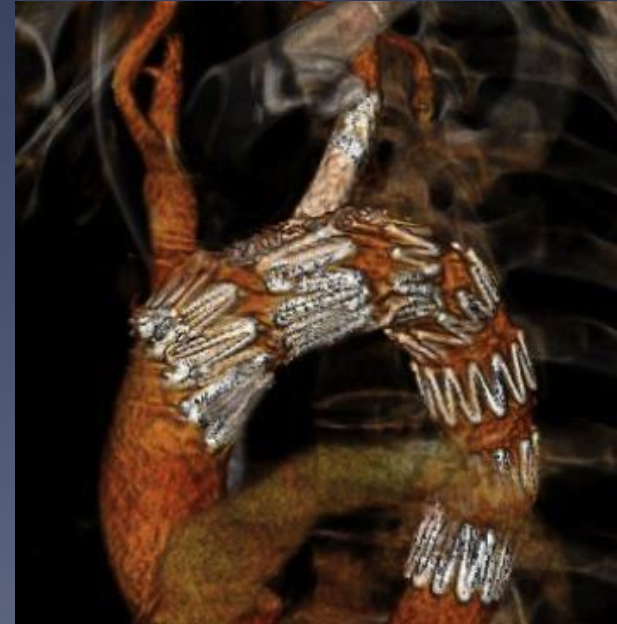
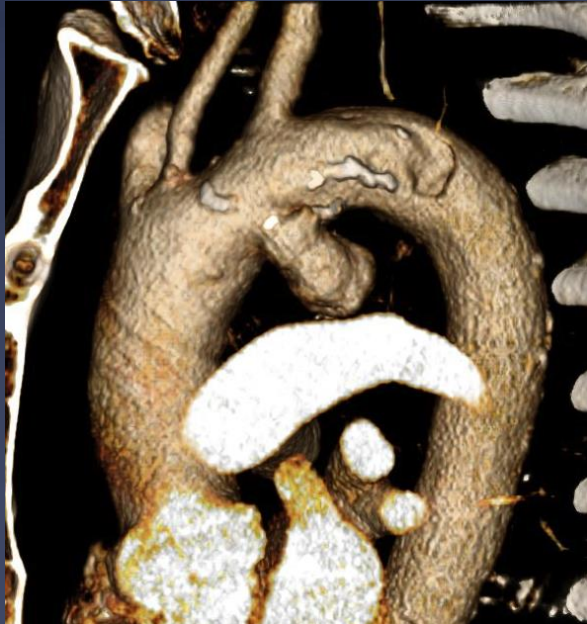
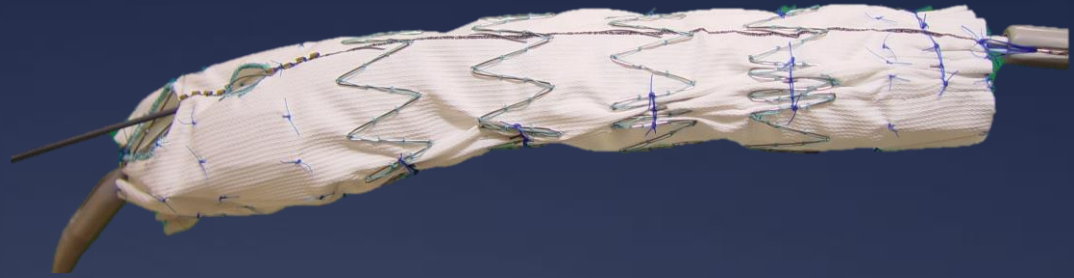
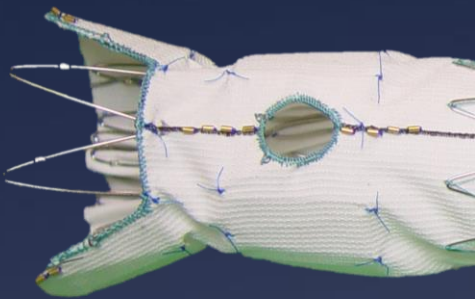
**Operators:** S. Haulon, N. Tailimparia, S. Aleed

**Clinical data:** Type Ia Endoleak after TEVAR 2015 for TAAA;  
leftside carotid-subclavian bypass

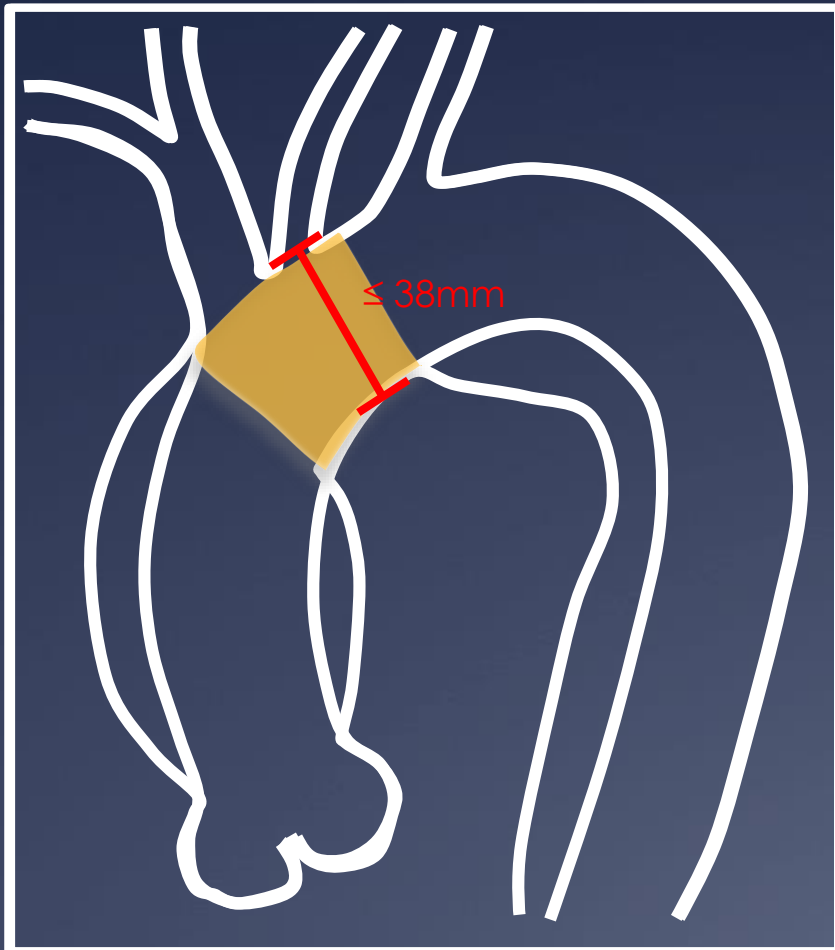
# Fenestrated Arch Endograft



# Fenesrated Arch Endograft

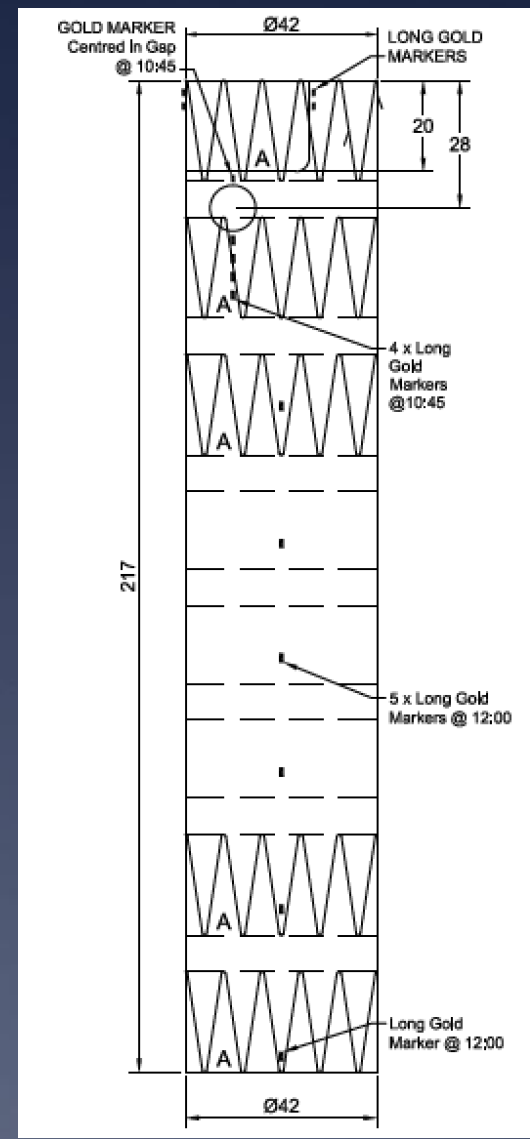
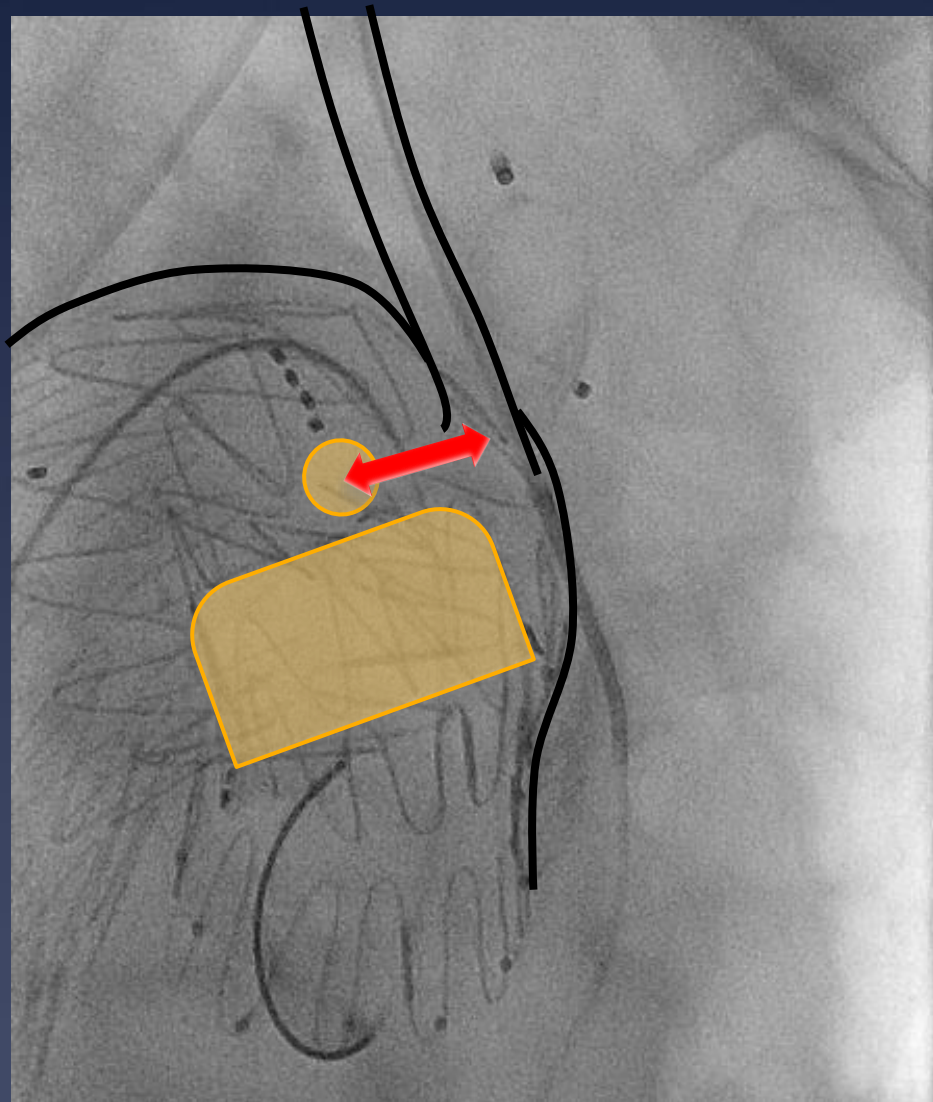


# Fen-Arch Anatomical Suitability



- \* Diameter  $\leq 38\text{mm}$
- \* Proximal landing zone  $\geq 20\text{mm}$
- \* Appropriate access vessels
- \* Landing zone in mid-arch

# Rotational Error



# Snared Preloaded Wire

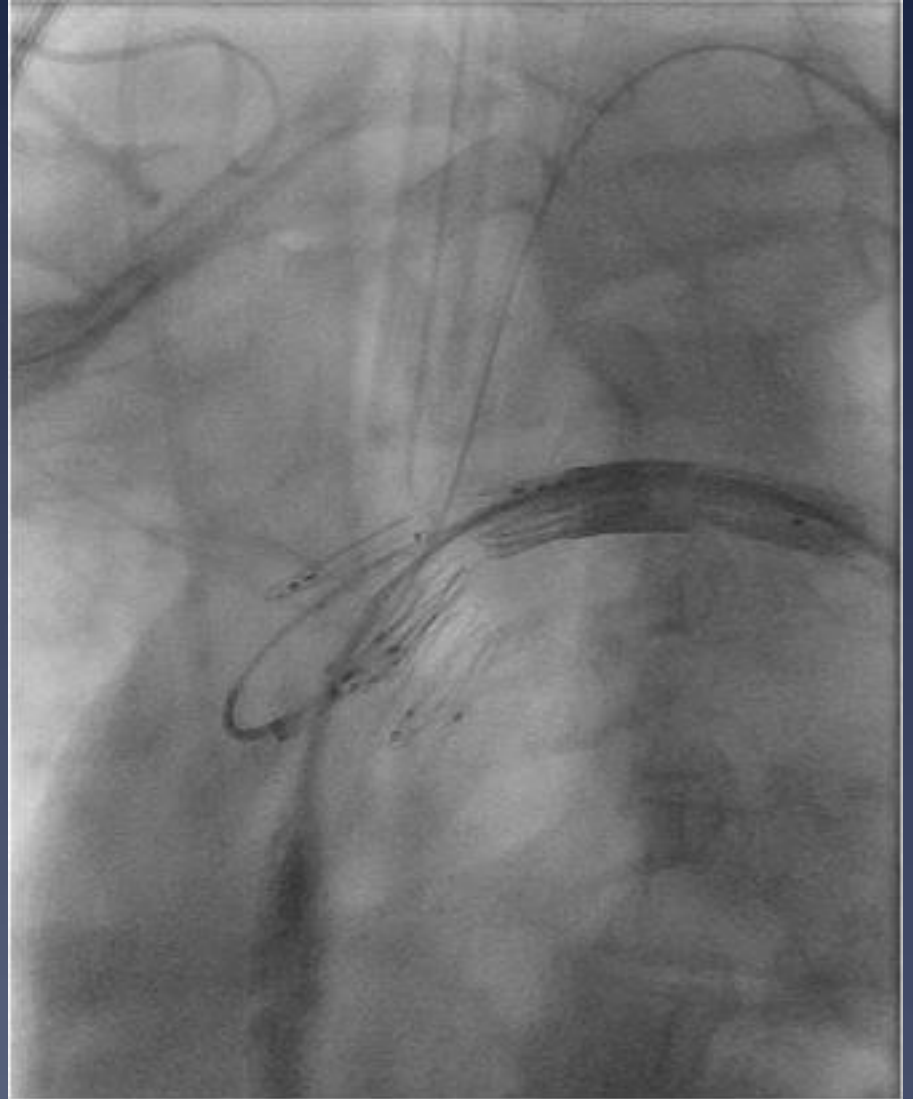


# Wire-Entanglement



## Options:

- \* Free wire by manipulation from LSA
  - \* Catheter
  - \* Balloon
- \* Give up T&T-wire







## Carbon Dioxide Flushing Technique to Prevent Cerebral Arterial Air Embolism and Stroke During TEVAR

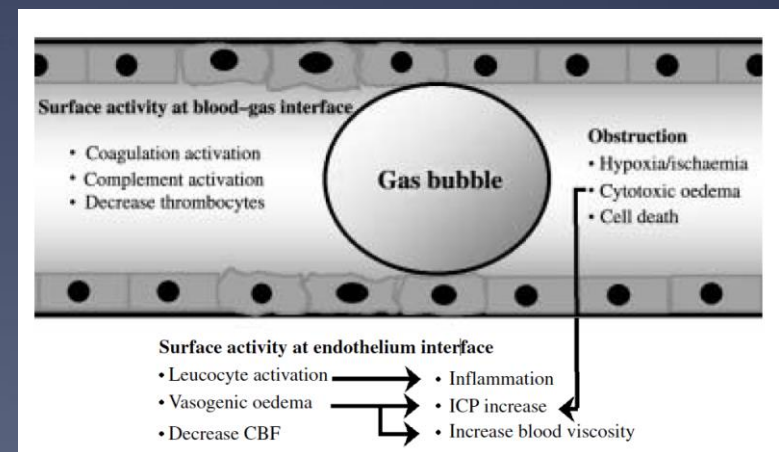
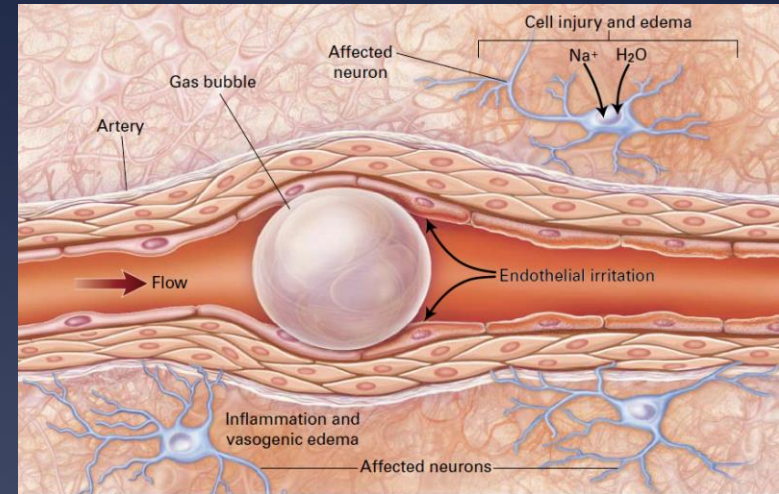
Journal of Endovascular Therapy  
1-3  
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DOI: 10.1177/1526602816633705  
www.jevt.org  
SAGE

- \* 2014-2015: n=36
- \* All complex arch and ascending TEVAR:
  - \* Branched arch
  - \* Fenestrated arch
  - \* Ascending TEVAR
- \* All zone 0 -1
- \* Stroke: 1/36 (3%)
  - \* minor non-disabling stroke





- \* Ischemia by arterial blockage
- \* Shear-stress of passing bubbles
- \* Inflammatory response
- \* Brain metabolism ↓
- \* Nerval function ↓
- \* Blood-brain barrier damage
- \* Cerebral blood flow ↓
- \* Disturbance of blood distribution
- \* Intracranial pressure ↑





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CASE 10 | FENESTRATED TEVAR  
WITH COOK ZENITH FENESTRATED GRAFT

**Operators:** N. Tsilimparis, F. Heidemann

**Clinical data:** TAAA (64mm), penetrating ulcer descending aorta



# Welcome to Essen!



5<sup>th</sup> AORTIC LIVE SYMPOSIUM

SAVE  
THE DATE



**AORTIC** | **2018**  
**LIVE**

**October 29-30, 2018**  
**Congress Center Essen, Germany**

In 2018 Aortic Live Symposium will return to Essen, Germany again.  
We are looking forward to welcoming you again next year!