Disclosures:

Proctor Cook™

PD Dr. med. Martin Austermann
Senior consultant and
Leader of section „endovascular aortic therapy“
The issue: Short infrarenal neck and juxtarenal neck

No sufficient infrarenal neck.
Open repair

(Younger) patients at good risk
No hostile abdomen.
Connective tissue disease.
EVAR/FEVAR/BEVAR/Chimney not possible.
(Bad access, demanding target vessels, severe kinking of the visceral aorta).

Younger pt at good risk.
CHEVAR vs. FEVAR in short neck AAA
CHEVAR vs. FEVAR in short neck AAA

St. Franziskus Hospital Münster experience since 2006

- FEVAR/BEVAR/CHEVAR
- EVAR/TEVAR
CHEVAR vs. FEVAR in short neck AAA

Decision making/Patient selection:

If we can avoid stents in visc. or renal arteries, we should do so. **Infrarenal open repair** in pt at good risk.

FEVAR/CHEVAR/BEVAR should be complementary techniques and not competitive. **Select** the best technique for a particular patient and the special anatomie.

Access vessels, target vessels, aortic morphology, urgency and patient conditions are the most important factors for decision making. **Careful evaluation** of the anatomy and the patient conditions.

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CHEVAR vs. FEVAR in short neck AAA

Male, 73 Y, CAD, AH

CMD-FEVAR:

Good access from below, straight aorta.
CHEVAR vs. FEVAR in short neck AAA

Male, 82 Y, CAD, RI, symptomatic

CHEVAR
CHEVAR vs. FEVAR in short neck AAA

Male, 82 Y, CAD, RI, symptomatic

Chimney EVAR

Poor access from below, kinked aorta, suitable access from above.
CHEVAR vs. FEVAR in short neck AAA

Saccular pararenal aneurysm
Male 71 Y, CAD, COLD
CHEVAR vs. FEVAR in short neck AAA
CHEVAR vs. FEVAR in short neck AAA

Saccular pararenal aneurysm
Male 71 Y, CAD, COLD

Chimney/Sandwich EVAR

Difficult target vessels. Later point of no return.
Male, 72 Y, CAD, COPD, symptomatic

T-BRANCH EVAR

Good access from above and below, forgiving positioning.
# CHEVAR vs. FEVAR in short neck AAA

## Treatment of complex aortic aneurysms with fenestrated endografts and chimney stent repair: Systematic review and meta-analysis

Yang Yaoguo¹,², Chen Zhong¹,², Kou Lei¹,² and Xiao Yaowen¹,²

<table>
<thead>
<tr>
<th></th>
<th>FEVAR (n=1884) FU 18.07 mouth</th>
<th>CHEVAR (n=380) FU 16.12 mouth</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 d Mortality</td>
<td>2.4 %</td>
<td>3.2%</td>
<td>0.459</td>
</tr>
<tr>
<td>FU-aneurysm-rel. Mortality</td>
<td>1.4 %</td>
<td>3.2 %</td>
<td>0.018</td>
</tr>
<tr>
<td>Target organ dysfunction</td>
<td>5 %</td>
<td>4 %</td>
<td>0.27</td>
</tr>
<tr>
<td>EL type 1</td>
<td>2.0 %</td>
<td>3.4%</td>
<td>0.092</td>
</tr>
<tr>
<td>Reintervention</td>
<td>11.7%</td>
<td>5.6%</td>
<td>0.001</td>
</tr>
</tbody>
</table>


Higher FU aneurysm rel. Mortality in CHEVAR

Higher reintervention rate in FEVAR
CHEVAR vs. FEVAR in short neck AAA

Collected World Experience About the Performance of the Snorkel/Chimney Endovascular Technique in the Treatment of Complex Aortic Pathologies

The PERICLES Registry

Konstantinos P. Donas, MD, Jason Lee, MD, Mario Lachat, MD, Giovanniti Torso, MD, PhD, and Frank J. Veith, MD, on behalf of the PERICLES investigators

Annals of Surgery • Volume 262, Number 3, September 2015

Identification of optimal device combinations for the chimney endovascular aneurysm repair technique within the PERICLES registry

Salvatore T. Scali, MD, Adam W. Beck, MD, Giovanni Torsello, MD, Mario Lachat, MD, Paul Kubilis, MS, Frank J. Veith, MD, Jason T. Lee, MD, and Konstantinos P. Donas, MD, on behalf of the PERICLES investigators, Gainesville, Fla., Birmingham, Ala., Muenster, Germany, Zurich, Switzerland, New York, NY, and Palo Alto, Calif.


Nitinol based Endografts and BECS seams to work best. More Chimneys leads to a higher risk for occlusion. Relining is associated with higher occlusion rate.

517 pt in 13 centers, mean FU 17.1 month

Mean number of Chimney-Stents per patient: 1.73

Occlusion free survival

Single or double Chimney works best.
CHEVAR vs. FEVAR in short neck AAA

Long-term follow-up of fenestrated endovascular repair for juxtarenal aortic aneurysm


N=173

More fenestrations are associated with more EL’s type 1 and 3 and more reinterventions.
CHEVAR vs. FEVAR in short neck AAA

Our approach:

- **Juxtarenal aneurysm**
  - **Pt at good risk**
  - **No good candidate for OR** (Old, high operative risk, hostile abd.)

  **OR**
  - Infrarenal anastomosis is possible.
  - Emergency

  **EVAR**
  - Kinked visc. aorta
  - Good access from above and below or Condud Space for branches TAAA

  **FEVAR**
  - Good access from below, Relative straight visc. Aorta >2 target vessels

  **CH-EVAR**
  - Difficult access from below, good access from above
  - Kinked visc. Aorta 1-2 Chimneys

  **BEVAR T-BRANCH**
  - Emergency

**First choice!**
Thank you for your attention!

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St. Franziskus Hospital Münster