Development of the Essen Aortic Program

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for the Essen Aortic Team

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

x I do not have any potential conflict of interest

The Essen Emergency Aortic Team Strategy
Cardiologists, Anestesiologists, Cardiovascular Surgeons
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Background

based on our own experience in Mainz

- – 1st TEE in AD 1983 case report
- -- TEE in AD 1986 single center study
- -- TEE in AD 1989 European multicenter study
- -- 1st Diagn and Ther in AD European multicenter study 1993
and later in Essen
- --- 1st IVUS - true lumen collapse/malperfusion 1994
- --- IVUS/ICE guided fenestration in AD 1996
- --- 1st TEVAR in AD in 1999
- -- Opening of Hybrid Room in a Catheterization Floor 2003
as we still observed an unchanged high morbidity and mortality
in acute AD
But what we need is a strong interdisciplinary approach in one team looking together to the patient.
The high mortality of aortic diseases stimulated the cardiologists and cardiovascular surgeons in Essen to find new diagnostic and therapeutic options.

### Diagnostic Improvement
- TTE/TEE
- IVUS
- CT with 3D
- MRT
- Urgent aortography and coronary angiography
- Angioscopy

### Therapeutic Options
- Intimal fenestration
- Endovascular stenting of aorta and side branches
- Frozen elephant trunk
- Open side branch graft stents
- Chimney technique
- Cerebro-, spinal protection

A successful approach only possible based on a **HYBRID ROOM** installation.
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Essen Aortic Program based on the realization of a Hybrid Room
- 1995 initiated and proposed concept as part of the new Academic Heart Center
- 1997 financial support letter
- 1999 start of heart center build-up
  3 surgical theatres
  3 catheterization labs
  1 catheterization lab with OR equipment
- 2004 opening of the West-German Heart Center Essen
Advantage: installation within a catheterization laboratory
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2003: 1st generation, 2010: 2nd generation
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Artic C system floor mounted with DynaCT (Siemens, Germany) 2010.
Based on the New West-German Heart Center structure

a new option was realized with direct transportation of

any patient with suspected acute aortic syndrome

to the Hybrid Room
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Direct admission to hybrid-OR with Aortic-Team waiting

- Anesthesiologic monitoring + TEE + preparation for surgery
  - Aortic rupture, CPR
  - Tamponade
  - stable hemodynamics

- Sternotomy / pericardial drainage

- Invasive diagnostic + malperfusion repair distally

- Aortic surgery
Hybrid Operating Room =
Combines invasive diagnostics, surgical & endovascular treatment on the same table
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Landing zone evaluation

Procedure control

Stent graft placement

Pathology exclusion

Tsagakis et al, Eur J Cardiothorac Surg. 2010
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seems to be the ideal basis for forming Aortic Centers
as recommended by the new 2014 ESC guidelines
on Diagnosis and Therapy of Aortic Diseases
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