

Chronic False Lumen Expansion Requires Complete Flow and Pressure Exclusion

Prof. Dr. Goetz M. Richter
 Director Clinic Diagnostic and Interventional Radiology

Prof. Dr. Philipp Geisbuesch
 Director Clinic Vascular and Endovascular Surgery
 Klinikum Stuttgart, Germany
 Aortic Center Stuttgart

Abschluss + 1,5ml HVL 13

Kontrolle

Fluss

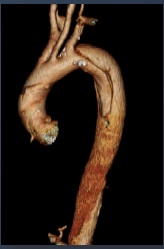
Prof. Dr. G.M. Richter, KDIR | Klinikum Stuttgart

No Disclosures

Prof. Dr. G.M. Richter, KDIR | Klinikum Stuttgart

IRAD Data on Natural Course of „Uncomplicated“ TBAD

6-10% mortality within 30 days
 59% of aortic expansion within 2 yrs.
 unknown risk for rupture and death



³

Fattori R, Montgomery D, Lovato L, et al. Survival after endovascular therapy in patients with type B aortic dissection: a report from the International Registry of Acute Aortic Dissection (IRAD). JACC: Cardiovascular Interventions 2013;6(8):876-882.

Prof. Dr. G.M. Richter, KDIR | Klinikum Stuttgart

Success in Chronic TBAD

Conceptual and essential key points for success?

- No perfusion of the FL
- No pressurization of FL
- No through-and-through flow

Prof. Dr. G.M. Richter, KDIR | Klinikum Stuttgart

F-EVAR for TBAD

Mid-Term Results of Fenestrated/Branched Stent Grafting to Treat Post-dissection Thoraco-abdominal Aneurysms

Kyriakos Oikonomou ^{a,b}, Piotr Kasprzak ^b, Athanasios Katsargyris ^a, Pablo Marques De Marino ^a, Karin Pfister ^b, Eric L.G. Verhoeven ^{a,*}

^a Department of Vascular and Endovascular Surgery, Paracelsus Medical University, Nuremberg, Germany
^b Department of Vascular Surgery, University Medical Centre Regensburg, Regensburg, Germany

Results: A total of 71 consecutive patients (56 male, mean age 63.8 ± 10.6 years) were treated. Technical success was achieved in 68/71 (95.8%) patients. In hospital mortality was four (5.6%) patients. Peri-operative morbidity was 19.6%. Three (4.2%) patients developed severe spinal cord ischaemia, one of these patients 12 months post-operatively. Mean follow up was 25.3 months (1–77 months). Cumulative survival rates at 12, 24, and 36 months were 84.7 ± 4.5%, 80.7 ± 5.1%, and 70.0 ± 6.7%, respectively. Estimated freedom from re-intervention at 12, 24, and 36 months was 80.7 ± 5.3%, 63.0 ± 6.9%, and 52.6 ± 8.0%, respectively. The main reasons for re-intervention were endoleak from visceral/renal arteries and iliac endoleak requiring extension. Target vessel occlusion occurred in 8/261 (3.1%) vessels (renal artery n = 4; superior mesenteric artery n = 2; coeliac artery n = 2). Mean aneurysm sac regression during follow up was 9.2 ± 8.8 mm, with a false lumen thrombosis rate of 85.4% for patients with a follow up longer than 12 months. No ruptures occurred during follow up.

Prof. Dr. G.M. Richter, KDIR | Klinikum Stuttgart

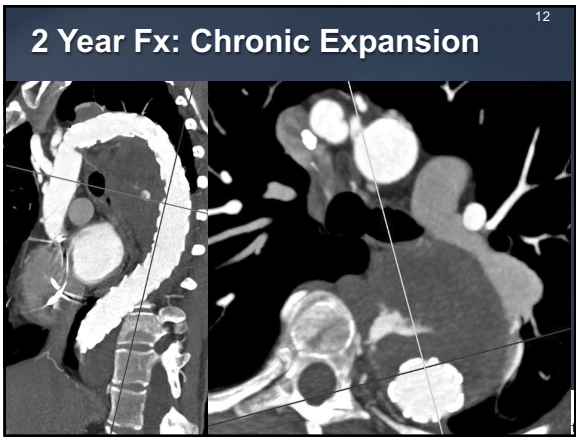
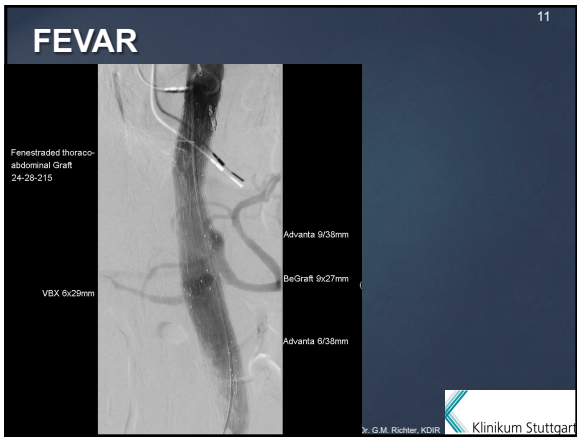
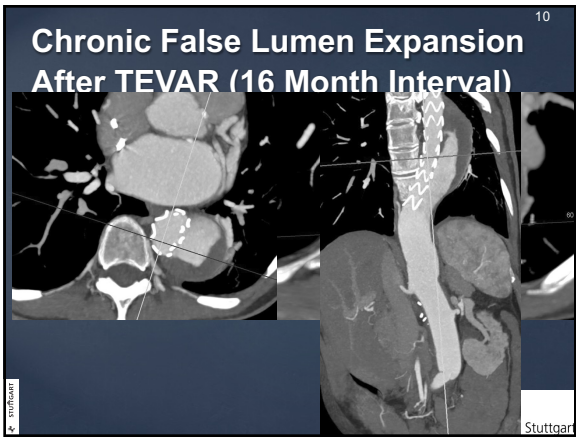
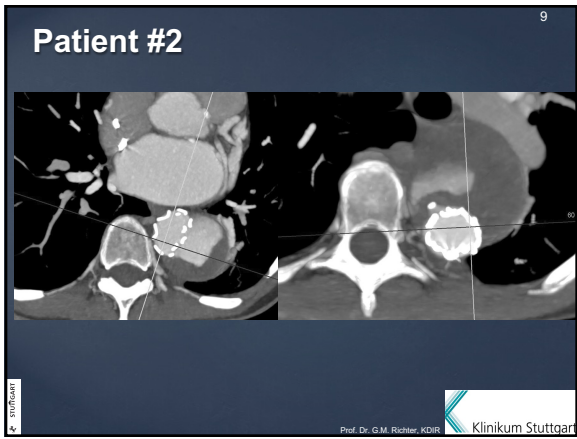
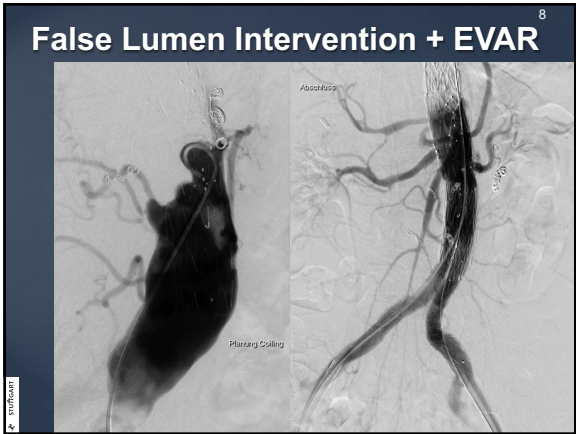
161 Chronic Dissections Since 2013

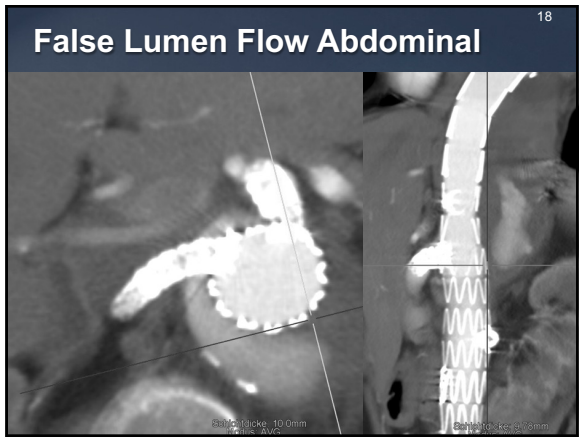
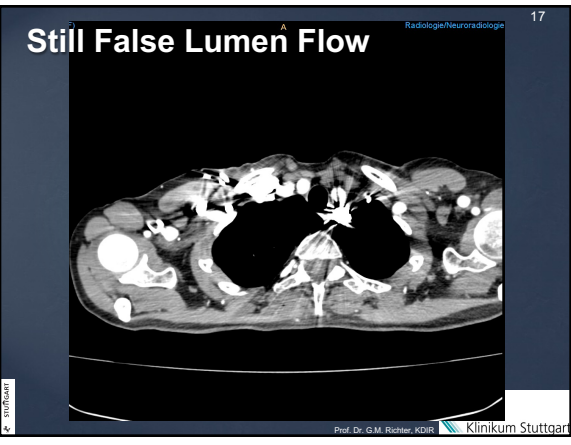
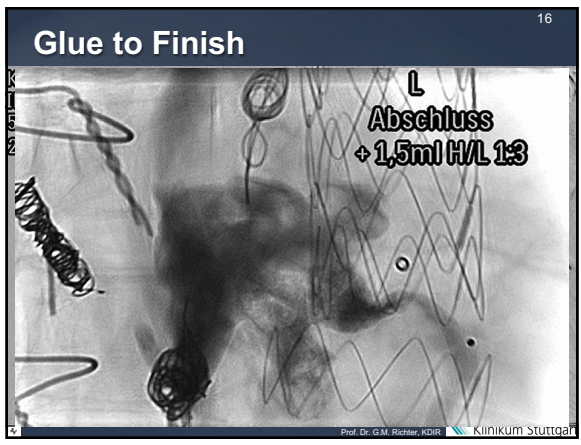
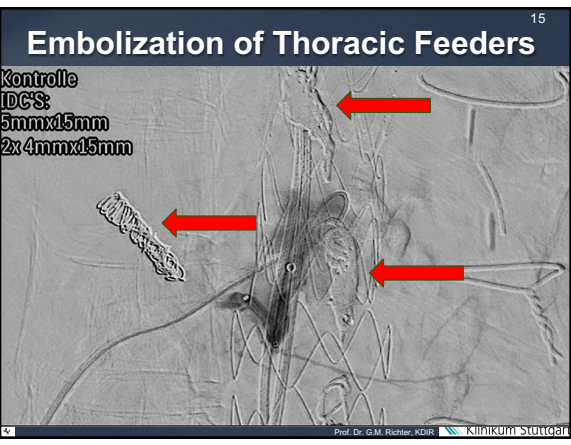
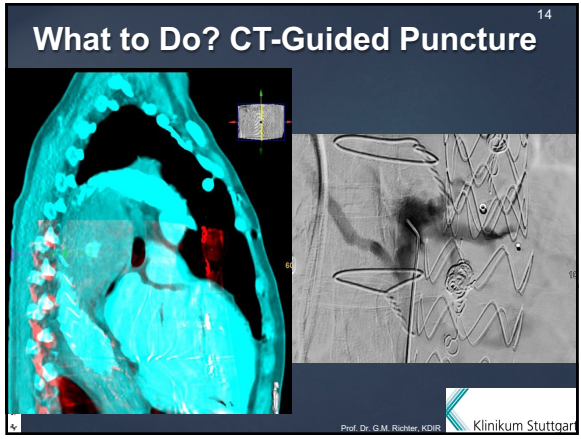
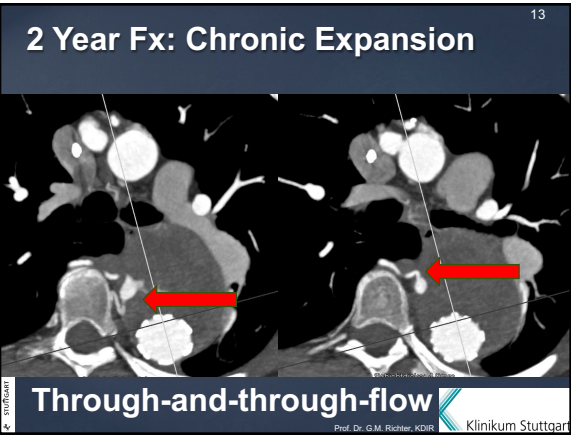
Indication: False lumen expansion

- TEVAR + BEVAR: 37
- TEVAR + FEVAR: 89
- TEVAR + FEVAR + EVAR: 25

29% False lumen interventions
18% CT / Cone beam guided interventions

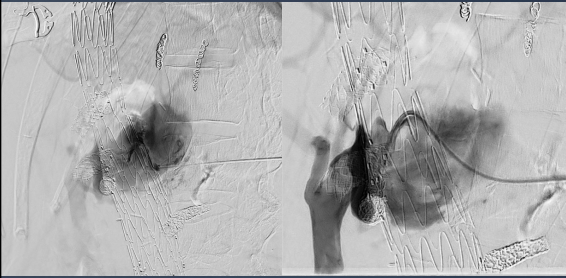
Prof. Dr. G.M. Richter, KDIR | Klinikum Stuttgart





Another Cone Beam CT Intervention

19



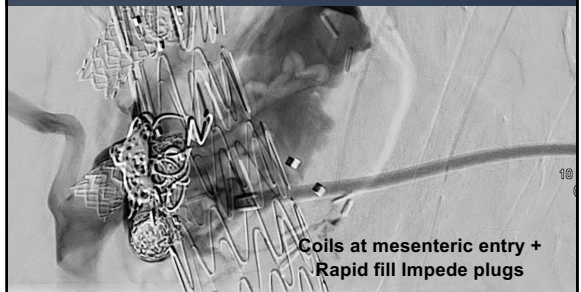
Klinikum Stuttgart

Prof. Dr. G.M. Richter, KDIR



Another Cone Beam CT Intervention

20



Coils at mesenteric entry +
Rapid fill Impede plugs

Klinikum Stuttgart

Prof. Dr. G.M. Richter, KDIR



7 x 8/60 Coils, 27 Rapid Fill Impede

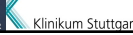
21

27xIMP-FI-12 (RapidFill)



Klinikum Stuttgart

Prof. Dr. G.M. Richter, KDIR



Conclusion

22

In chronic dissections false lumen interventions in up to 30% despite successful BEVAR/FEVAR

Pressure and flow exclusion paramount

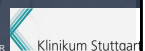
Perfusion exclusion might require complex solutions

When retrograde access not possible CT access and direct false lumen maneuvers essential

Glue, coils, plugs, candy plugs are needed

Klinikum Stuttgart

Prof. Dr. G.M. Richter, KDIR



False Lumen Expansion Stopped

23



Klinikum Stuttgart

Prof. Dr. G.M. Richter, KDIR

