LIVE CASE GUIDE

Newest developments demonstrated by world experts – transmitted in 3D
Dear Colleagues,

During the 5th Aortic Live Symposium 20 live cases are scheduled to be performed and transmitted to the auditorium. The aim of this booklet is to give you an overview about the live case schedule and to provide a practical guide through the procedures.

We hope for your understanding that with respect to the clinical needs of the patients changes of the schedule may occur. Furthermore, the anticipated procedural steps are just an outline of the procedure.

Depending on the discretion of the operator the procedural strategy or the choice of material may vary.

Sincerely yours,

Prof. Heinz Jakob and Prof. Tilo Kölbl

Also on behalf of the co-directors
Monday, October 29, 2018
CASE 01 | AORTIC VALVE REPAIR

Live from Essen | Session 1 | 09:30-10:30

Patient data: Male, 58 years
 Operators: G. El Khoury, K. Tsagakis, F. Mourad
 Medical background: St.p. PCI
 TEE: Bicuspid AV
       Root Aneurysm
 Treatment: AV-Reimplantation
           Root replacement

Materials: Cardioroot (Getinge)

![Image of medical images]
CASE 02 | MINIMAL INVASIVE AORTIC VALVE REPLACEMENT

Live from Essen | Session 1 | 09:30-10:30

**Patient data:** Male, 78 years  
**Operators:** M. Borger, A. Hoyer, M. Thielmann

**Medical background:** NYHA III,  
Good LV function  
60% stenosis of RD1  
aFib  
stenosis of coeliac trunk  
Log. ES-I: 5.1%

**Treatment:** Minimal-invasive AVR

**Materials:**  
1. RAM Device (LSI Solutions)  
2. Cor-Knot (LSI Solutions)  
3. Perimount AV (Edwards)
Live from Hamburg | Session 1 | 11:00-12:00

**Patient data:** Female, 71 years, L. K.

**Operators:** G. Panuccio, M. Scheerbaum

**Clinical data:**
1. Asymptomatic aneurysm of left subclavian artery
2. Status post left carotid-subclavian bypass one week prior to TEVAR

**Risk factors:** DDD-pacemaker, paroxysmal atrial fibrillation, diabetes Type II, left heart failure (NYHA II), chronic gastritis, biliary cirrhosis

**Procedural steps:**
1. Percutaneous access, transfemoral + transbrachial (left)
2. LAO angulation and angiogram
3. Stentgraft deployment
4. Plug + coil occlusion of LSA as needed

**Materials:**
1. Boston Relay Pro Stentgraft (low profile) (TerumoAortic)
2. Proglide (ABBOTT)
3. CERA Plug (Lifetech)
CASE 04 | TRANSAPICAL TAVI AND TMVR

Live from Essen | Session 1 | 11:00-12:00

Patient data: Female, 83 years
Operators: D. Wendt, M. Thielmann, A. Lind
Medical background: NYHA III, CHD
COPD II
Prior AVR+V-RCA 2005 (Hancock II 23)
redo-AVR+MVR 2011 (Perimount 23 & Perimount Magna MV 29mm)
Now: degenerated MV (Pmean 17mmHg and AR III°)
Log. ES-I: 30.4%

Treatment: TA-VinV mitral and aortic

Materials: 1. THV Sapien 3 (Edwards)
2. Certitude Delivery System (Edwards)
CASE 05 | TRANSFEMORAL TAVI

Live from Berlin | Session 1 | 11:00-12:00

**Patient data:** Female, 69 years, A. M.
**Operators:** J. Kempfert, C. Klein
**Clinical data:** Severe aortic stenosis (mean Gradient 59 mmHg)
**Risk factors:** Alcoholic toxicomania, live cirrhosis, chronic renal failure stage IIIb, pulmonary hypertension, carotid occlusive disease (right 70%)

**Procedural steps:**
1. Percutaneous femoral access
2. Valvuloplasty with BARD TRUE® Flow catheter
3. Evolut Pro THV implantation
4. Access closure

**Materials:**
1. Proglide (ABBOTT)
2. BARD TRUE® Flow catheter (Bard)
3. EvolutPro (Medtronic)
CASE 06 | BRANCHED THORACOABDOMINAL EVAR

Live from Hamburg | Session 2 | 15:00-16:00

Patient data: Female, 65 years, S. O.

Operators: N. Tsilimparis, F. Heidemann

Clinical data: Type II thoracoabdominal aortic aneurysm (68mm)

Risk factors: Prior procedure: fenestrated TEVAR (scallop for LCCA, fenestration for LSA) on 9.10.18
Right-sided renal artery stenosis, PAD

Procedural steps:
1. Cutdown right CFA (22F), cutdown left CFA (16F), potentially cutdown right brachial artery (12F)
2. Deployment of branched main body, bifurcated graft and right iliac stentgraft, suture of CFA to restore leg perfusion
3. Use of a transfemoral steerable sheath to access branches.
4. Catheterization and bridging stent grafts for all four visceral vessels
5. Deployment of left iliac stentgraft for CIA

Materials:
1. Custom made branched thoracoabdominal stent-graft (COOK Medical)
2. Viabahn and VBX (Gore)
3. Fluency and Covera (Bard)
4. Fustar Sheath (Lamed/Lifetech)
5. LiquoGard (Möller Medical)
6. Protege Everflex (Medtronic)
CASE 07 | PRELOADED FENESTRATED THORACOABDOMINAL EVAR

Live from Paris | Session 2 | 15:00-16:00

Patient data: Male, 60 years, D. L.
Operators: S. Haulon, D. Fabre
Clinical data: Back pain related – inflammatory aneurysm
Risk factors: Past medical history: myelodysplasia, cervical disc hernia, lower limbs paraparesis, left kidney hydronephrosis
Angio CT: 50mm juxtarenal aneurysm, 35 mm left common artery aneurysm
PET-CT: inflammatory aneurysms
Corticosteroid treatment

Procedural steps:
1. Percutaneous femoral access, bilateral 16 Fr sheath, Fusion registration (Discovery IGS 740, GE Healthcare)
2. 4 fenestrations bifurcated endograft with 2 preloaded catheters for the renal arteries
3. Iliac branched graft
4. Ipsilateral leg extension and 2 bridging leg extensions with iliac branched graft

Materials:
1. Proglide x4 (ABBOTT)
2. Custom made fenestrated and bifurcated thoraco-abdominal device with 2 preloaded catheters (COOK Medical)
3. ZBIS Iliac branched endograft (COOK Medical)
4. Amplatzer Plug N°4 (ABBOTT)
5. Covered bridging stents: BeGraft (BENTLEY)
6. Ipsilateral and bridging leg extensions (COOK Medical)
7. Coda compliant balloon
CASE 08 | ZONE 2 BRANCHED ARCH TEVAR

Live from Philadelphia | Session 2 | 15:00-16:00

Operators: N. Desai, J. Bavaria
CASE 09 | ZONE 3 TEVAR

Live from Essen | Session 2 | 16:30-17:30

**Patient data:** Female, 68 years

**Operators:** R. A. Jánosi, K. Tsagakis

**Medical background:** St.p. emergency BioBentall (Bio-Integral) + E-vita open for retrograde acute Type I AD and explantation of multilayer stents from the proximal aorta after endovascular acute Type B AD treatment

St.p. traumatic SAB

**CTA:** Type II endoleak, progressive aneurysm

**Treatment:** TEVAR (Medtronic)

**Materials:**
1. Valiant Thoracic Stentgraft (Medtronic)
2. Captivia Delivery System (Medtronic)
CASE 10 | OPEN REPAIR TAAA

Live from Essen | Session 2 | 16:30-17:30

**Patient data:** Female, 74 years

**Operators:** R. Chiesa, L. Bertoglio, E. Rinaldi, M. Lainka

**Medical background:** NYHA II

COPD II

**CTA:** TAAA Type III

Diameter 60mm

**Treatment:** TAAA replacement

**Materials:**

1. Thoracoabdominal aortic graft
   Hemashield Platinum Woven (Getinge)

2. CSF Drainage LiquoGuard (Möller Medical)
LIVE CASES, Monday, October 29, 2018

CASE 11 | ZONE 2 TEVAR AND CANDY-PLUG

Live from Hamburg | Session 2 | 16:30-17:30

Patient data: Male, 62 years, A. W.
Operators: F. Rohlffs, M. Scheerbaum
Clinical data: 1. Stent graft-induced new entry with persistent false lumen perfusion
2. St.p. acute Type B-dissection, left Carotid-Subclavian Bypass, TEVAR 12/2017
Risk factors: Arterial hypertension, Hashimoto disease
Procedural steps: 1. Femoral cut-down or percutaneous access
2. LAO angulation and angiogram
3. True lumen stent-graft extension landing above celiac trunk
4. Catheterisation of the false lumen and Candy-Plug deployment
Materials: 1. Zenith ZTEG/ZDEG stent-graft (COOK Medical)
2. Custom-made Candy-Plug (COOK Medical)
CASE 12 | FROZEN ELEPHANT TRUNK AND CERVICAL DEBRANCHING

Live from Essen | Session 3 | 09:30-10:30

**Patient data:** Female, 63 years

**Operators:** K. Tsagakis, W. Weißenberger, F. Mourad

**Medical background:** St.p. proximal repair, acute Type I AD with severe cerebral malperfusion

Residual minor hemiparesis

Vertigo

TTE: AV regurgitation II–III

**CTA:**

Progressive residual AD

LCCA occlusion

Aberrant left vertebral artery

**Treatment:** FET (E-vita open), LCCA+LVA+LSA debranching

AV replacement

**Materials:**

1. E-vita open plus (CryoLife/JOTEC)
2. Hemashield Platinum Woven (Getinge)
3. Flowweave Bioseal (CryoLife/JOTEC)
4. Trifecta AV (ABBOTT)
CASE 13 | BRANCHED FROZEN ELEPHANT TRUNK

Live from Essen | Session 3 | 09:30-10:30

Patient data:  Female, 71 years
Operators: Y. Okita, K. Minatoya, D. Wendt

Medical background: Progressive Mega-aorta
                   AV regurgitation II

CTA: Aneurysm 5.7cm
     Atherosclerosis

Treatment: FET (Frosenix), arch replacement with branched graft

Materials: 1. Frosenix (Japan Lifeline)
           2. Gelweave Plexus (Terumo)
CASE 14 | CERVICAL DEBRANCHING FOR ZONE 1 TEVAR

Live from Essen | Session 3 | 11:00-12:15

Patient data:  Female, 59 years
Operators:  S. Debus, S. Wipper, M. Lainka
Medical background:  St.p. emergency TEVAR for complicated acute Type B AD
St.p. paraplegia
Renal insufficiency
CTA:  New Type Ia endoleak
Treatment:  Debranching for TEVAR in Zone 1

Materials:  1. Hemashield (Getinge)
2. MiraQ (Medistim)
CASE 15 | ZONE 2 TEVAR

Live from Regensburg | Session 3 | 11:00-12:15

Patient data: Male, 48 years, H. R.
Operators: K. Oikonomou, K. Pfister
Clinical data: Collapsed thoracic endograft st.p. TEVAR due to traumatic rupture, Endoanchor fixation and Palmaz Stent
Risk factors: COPD, Hypertension
Procedural steps: 1. Cut down unilateral femoral access
2. Palmaz stent dilation
3. Stent graft advancement and angiography
4. Deployment and dilation

Materials: 1. 20F DrySeal Sheath (Gore)
2. Coda Balloon 32 mm (COOK Medical)
3. Gore TAG Active Control 282810 (Gore)
CASE 16 | FENESTRATED ARCH TEVAR

Live from Hamburg | Session 3 | 11:00-12:15

Patient data: Female, 73 years, B. H.  
Operators: N. Tsilimparis, F. Heidemann  
Clinical data: Type II thoracoabdominal aortic aneurysm (53mm)  
Risk factors:  
1. fTEVAR (scallop for inominate artery/bovine arch, fenestration LSA)  
2. bEVAR (4-vessel branched) aneurysm of ascending aorta (45mm)  
Lung resection for lung cancer 2017, colon resection for adenom 1998  
Procedural steps:  
1. Percutaneous access right CFA (22F), percutaneous access left CFA (5F), percutaneous access left brachial artery (7F)  
2. Insertion of fenestrated main body and snaring of the preloaded guidewire for LSA  
3. Angiography and deployment of fenestrated main body  
4. Bridging stent LSA  
Materials:  
1. Proglide (ABBOTT)  
2. Fenestrated arch device (COOK Medical)  
3. V12 Advanta (Getinge)  
4. Protege Everflex (Medtronic)
CASE 17 | EVAR + ILIAC SIDEBRANCH WITH CT-OVERLAY

Live from Hamburg | Session 4 | 14:30-15:30

**Patient data:** Male, 74 years, T. H.

**Operators:** T. Mastracci, F. Rohlffs

**Clinical data:**
1. Asymptomatic abdominal aortic aneurysm
2. Asymptomatic right common iliac aneurysm

**Risk factors:** Arterial hypertension, former smoker

**Procedural steps:**
1. Access via bilateral femoral cut-down and CT-overlay (Cydar)
2. Implantation of iliac side branch device (right common iliac artery), 12F sheath from contralateral for establishing through-and-through femoro-femoral wire, partial deployment, catheterization of right IIA via side branch, bridging stent for IIA and complete deployment of ZBIS
3. Implantation of aortic main body (EVAR)
4. Connection of aortic main body and iliac side branch device

**Materials:**
1. Zenith Alpha and ZBIS stent-graft system (COOK Medical)
2. Advanta V12 (Getinge)
3. Cloud-based CT-overlay (Cydar Ltd)
CASE 18 | EVAR WITH PREVENTIVE IMA PLUG EMBOLIZATION

Live from Regensburg | Session 4 | 14:30-15:30

Patient data: Male, 75 years, G. A.
Operators: K. Oikonomou, K. Pfister
Clinical data: Patient with 5.5cm infrarenal AAA and prominent IMA
Risk factors: KHK, hypertension, COPD, renal insuff., (no candidate for open surgery)
Procedural steps: 1. Bilateral femoral cut-down access
2. Catheterization and plug embolization of the IMA
3. EVAR
4. Intraoperative CEUS and endoanchor fixation
Materials: 1. Amplatzer vascular plug 6mm (ABBOTT)
2. C3 Excluder RLT 311416; PLC 141200 (Gore)
3. Coda balloon 32mm (COOK Medical)
4. Heli-Fx endoanchor system (Medtronic)
CASE 19 | OPEN REPAIR FOR COMPLEX ILIAC ANEURYSM

Live from Essen | Session 4 | 14:30-15:30

Patient data: Male, 54 years
Operators: J. Schmidli, V. Makaloski, M. Lainka
Medical background: Aneurysm left int. iliac artery
Chronic Type B aortic dissection
St.p. Bentall + FET (E-vita open) for acute Type I AD
CTA: Aneurysm of both Iliac arteries
Treatment: Open repair of infrarenal aorta and iliac arteries
Materials: 1. Hemashield (Getinge)
CASE 20 | TRANSCAVAL ENDOLEAK EMBOLIZATION

Live from Hamburg | Session 4 | 14:30-15:30

Patient data: Male, 78 years, P. S.
Operators: F. Rohlffs, M. Scheerbaum
Clinical data: 1. Progression of aneurysm sac with Type II endoleak
Risk factors: Arterial hypertension, prostatectomy with radiotherapy 2011, multiple groin surgeries
Procedural steps: 1. Percutaneous venous and arterial femoral access
2. CT fusion, puncture of the aneurysm sac via inferior caval vein
3. Angiogram of the endoleak
4. Coilembolisation; liquid embolization with glue

Materials: 1. Nester Coils (COOK Medical)
2. Brockenbrough needle (COOK Medical)
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Jörg Kempfert  
Axel Unbehauen

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AORTIC LIVE 5
2018
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