AORTIC LIVE

LIVE CASE GUIDE

16 May 2025

at 73rd International Congress of the ESCVS
Royal Olympia Hotel, Athens, Greece

Summary

Transmission Guide

This guide has been prepared for the **Aortic Live Symposium in Athens, 2025**, where **six** live cases will be performed and transmitted directly to the auditorium and streamed to a global audience. The aim is to provide both an overview of the live case schedule and a practical orientation through each procedure.

Each case highlights innovative techniques and approaches in aortic interventions, presented by leading experts in the field. The guide outlines the anticipated procedural steps for each case, offering insights into the strategy, devices, and techniques planned.

Please be aware that the clinical needs of the patients take precedence, and changes to the schedule or procedural details may occur. Additionally, the procedural steps provided are indicative only; both the strategy and materials used may vary at the discretion of the operator during the live session.

We thank you for your understanding and hope this guide enhances your experience during the symposium.

Featured Cases

Transmission Centres

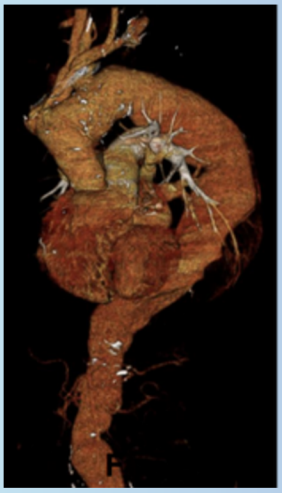
- University Hospital Cologne, Germany
- SIMS Hospital, Chennai, India
- Ludwigs Maximilian University Hospital, Munich, Germany
- Ospedale Policlinico San Martino - University of Genoa, Italy

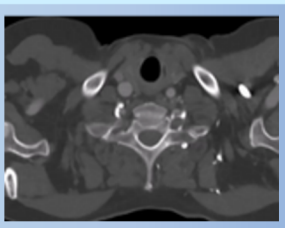
Triple Arch Branch Implantation with the Transaxillary Branch-to-Branch-to-Branch Technique

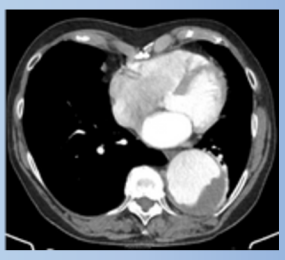
Speaker:
Nikolaos Tsilimparis, *MD, PhD is Chair of the department of Vascular and Endovascular Surgery and Co-Chair of the University Aortic Center of LMU, Munich, Germany. He specialises in open and endovascular repair of complex aortic disease.*

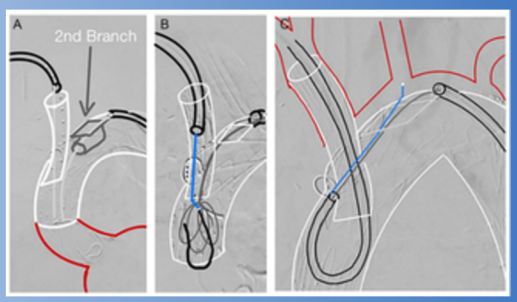
Patient Data:	Female, 81y/o
Operators:	Nikolaos Tsilimparis, Pichlmaier, Maximilian, Jan Stana
Clinical Data:	Enlarging aneurysm of the descending aorta with a current maximum diameter of 72 mm, chronic residual aortic dissection (AD) after proximal ao. Repair, Abdominal aortic aneurysm with a maximum diameter of 53 mm. Status post MISACE (selective coiling of the segmental artery at T9 left) 05.02.2025
Key Features:	Aneurysmal dilation of the aortic arch, unsuitable as a landing zone for standard TEVAR
Procedural Steps:	• Bilateral femoral access • Femoral artery access with preclosure (2 ProStyle). • Lunderquist double-curved .035 wires placed into the left ventricle. • Right axillary artery exposure (cutdown). • Munich Valsalva Manouver (MuVIT) to reduce cardiac output. • Deployment of the triple-inner-branch arch endograft. • Antegrade Innominate Artery (IA) Bridging transaxillary • Retrograde transaxillary Stenting of the LCA with the **Branch-to-branch-to Branch technique** • Retrograde transfemoral stenting of LSA
Materials:	Cook Arch branch 40-34-246, Bridging stents: Innominate: Thoracic extension 13-20-107, LCA: BeGraft Plus oder Viabahn VBX 9-50, LSA : Viabahn 13-100, 12F 45 Ansel Sheath, 12-80 Sheath. Terumo 400cm wire

Imagery:









Hypoplastic Aortic Arch, Aneurysm of DTA and LSA, Abrreant Right Subclavian Artery - Corrective Surgery

Speakers:

Professor Bashi Velayudhan
Director & Senior Consultant, Cardiothoracic & Vascular surgery, 51st president of Indian Association of Cardiovascular and Thoracic surgeons.
ICAD - Institute of Cardiac & Aortic Disorders, SIMS Hospital, Chennai, India

Dr. A. Mohammed Idhrees
MS, MCh, FAIS, Consultant - Cardiothoracic & Vascular Surgery, SIMS Hospital, Chennai, India. Assistant Editor -Indian Journal of Thoracic and Cardiovascular Surgery

Patient Data: Female, 49y/o, Hypoplastic aortic arch, aneurysm of DTA and LSA, Abrreant right subclavian artery

Operators: Bashi Velayudhan, Mohammed Idhres

Clinical Data:

- C/o exertional chest pain and throat pain- NYHA II for 5 to 6 years
- C/o Dyspnoea on exertion - NYHA II for 6 months
- C/o occasional dysphagia

Key Features:

Technical difficulties:

- LSA aneurysm extending from origin to distal to left veterbral artery
- Hypoplastic arch – arch at the origin of LSA (18mm)
- Aberrant Right subclavian artery from DTA
- Aneurysm of the DTA

Procedural Steps:

Two stage correction

Stage 1

- RSA - RCCA bypass
- Distal anastomosis of the LSA (with 8mm straight graft) in the infraclavicular region
- Plugging of the aberrant RSA proximal to the vertebral artery

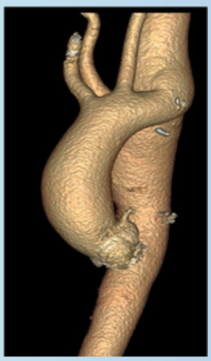
Stage 2

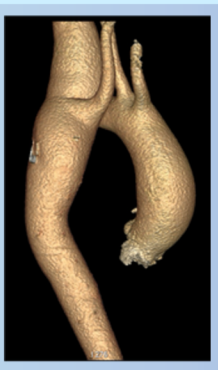
- Left posterolateral thoracotomy / Femoral femoral bypass with partial bypass
- Divide the aorta between the clamps - Open the aorta
- Proximal anastomosis (with straight graft) at zone 2
- Ligate the LSA as distal as possible
- Reimplant the LSA graft (Day 1) onto the neograft
- Distal anastomosis

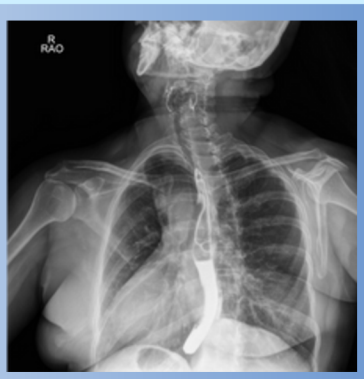
Materials:

- 7mm dacron straight graft – (VASCUTEK /UNIGRAFT) for subclavian artery anastomosis
- 22- 24 dacron straight graft for arch replacement

Imagery:





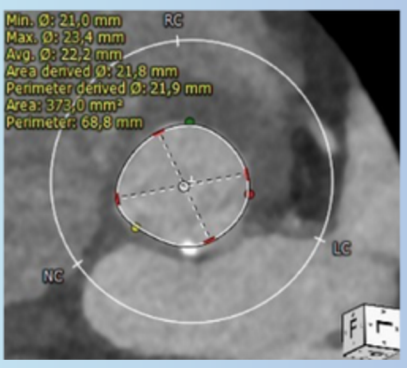


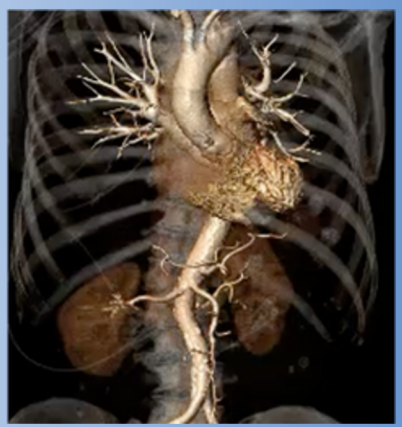
Aortic Annular Enlargement Using the Novel Y-Incision Technique

Speaker:

Prof. Dr. Lenard Conradi *is surgical director of the department for cardiac surgery at University Hospital Cologne, Germany. He has expertise in many areas of cardiac surgery including endoscopic minimally-invasive heart valve surgery, transcatheter-based valve therapies (TAVI, Edge-to-edge repair (TEER), TMVI), complete arterial and minimally-invasive coronary revascularization, complex and/or redo cardiac surgery. He has published extensively on these topics and is author of > 250 scientific articles.*

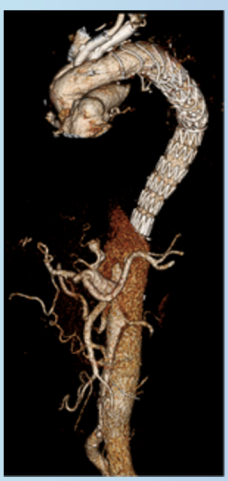
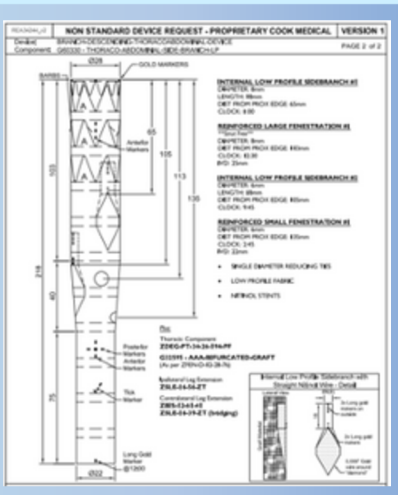
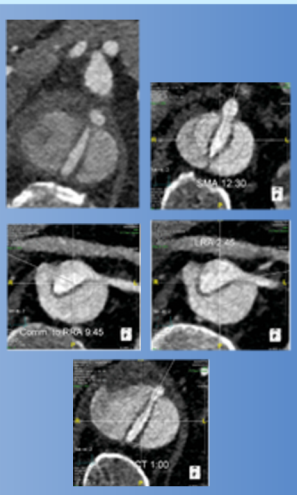
Patient Data:	Female, 64y/o (73y/o back up case), Severe aortic stenosis
Operators:	Lenard Conradi, Fabienne Plaßmeier
Clinical Data:	Dyspnea NYHA III, syncope, vertigo, asthma, rheumatoid arthritis
Key Features:	SAVR avoiding patient-prosthesis-mismatch; appropriate prosthesis size in relation to BSA
Procedural Steps:	• Partial upper ministernotomy • Bifemoral cannulation • Root enlargement via Y-Incision and patch • AVR • Artery closure device
Materials:	Venous cannula: Smartcanula® (Smartcanula LLC, Lausanne, Switzerland); arterial cannula: Maquet 17 Fr (Getinge Group, Rastatt, Germany); root enlargement using bovine patch, AVR: Avalus Ultra (Medtronic, Minneapolis ,USA) femoral artery closure with MANTA® Teleflex(Morrisville, NC, USA)
Imagery:	• Coronary angiography • Transthoracic/ transesophageal echocardiography • CT scan aortic angiography





Inner Branched/fenestrated Endograft for Post-dissection TAAA

Speaker:
Nikolaos Tsilimparis, *MD, PhD is Chair of the department of Vascular and Endovascular Surgery and Co-Chair of the University Aortic Center of LMU, Munich, Germany. He specialises in open and endovascular repair of complex aortic disease.*

Patient Data:	Male, 58y/o
Operators:	Nikolaos Tsilimparis, Jan Stana
Clinical Data:	Enlarging post-dissection aneurysm at the thoracoabdominal junction with a maximum diameter of 62 mm. Status post replacement of the ascending aorta for acute Type A dissection. Redo aortic arch replacement using FET technique (distal diameter 30 mm) (February 2023). Status post MISACE (L4 bilateral, L3 right, L2 right, L1 left). Status post TEVAR (ZDEG 34-26-194).
Key Features:	Triple-lumen dissection in the renovisceral segment. Aneurysmal enlargement of the celiac trunk with a diameter of 16 mm.
Procedural Steps:	• Bilateral femoral access • Introduction of CMD Inner branched/ fenestrated endograft (TC, RRA, SMA, LRA) from rightfemoral access. • Cannulation of SMA and left Renal artery fenestrations • Retrograde cannulation of Right renal artery and celiac artery with steerable sheaths transfemoral • Bifurcated graft Implantation • Further procedural steps: Right iliac extension, Left iliac extension
Materials:	Cook Inner branched/fenestrated device 28-22-218, Bifurcated graft implantation Cook ZFEN-D-16-56-ZT, Right iliac extension: ZSLE 16-56-ZT, Left iliac extension: ZBIS 12-61-41 , Left external iliacextension: ZSLE 16-39-ZT, Fustar 10F 55cm steerable sheath.
Imagery:	  

FET and Simultaneous Extension Using EV-NEO

Speaker:

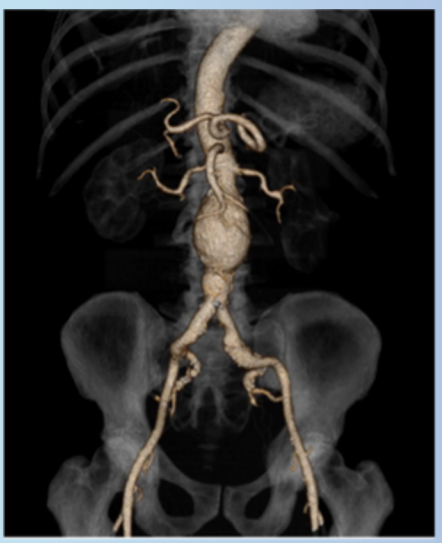
Konstantinos Tsagakis, *MD, PhD, is senior surgeon and section head of thoracic aortic surgery in the department of cardiac surgery at University Hospital Cologne, Germany. He has advanced experience in open, hybrid and endovascular aortic surgery.*

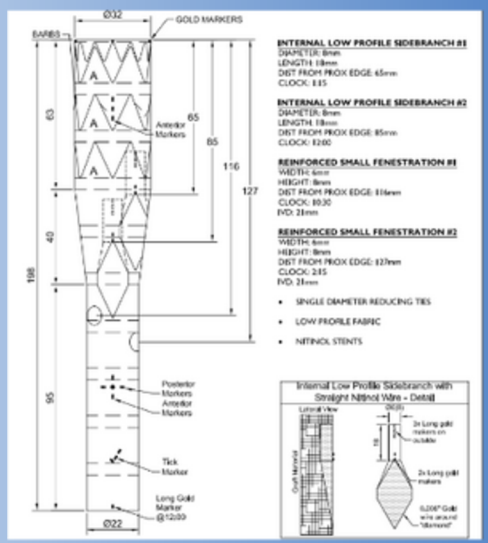
Patient Data:	Female, 48y/o, Chronic residual aortic dissection (AD) after proximal ao. repair
Operators:	Konstantinos Tsagakis, Maximilian Luehr, Achmed Elderia
Clinical Data:	St.p. ascending aorta replacement, progressive descending ao. aneurysm
Key Features:	Entry in the middle segment of the descending aorta (Zone 4/5), multi-dissected aortic lumen
Procedural Steps:	• Cannulation – right axillary artery, 8mm graft (Gelweave, Terumo) • Debranching of left subclavian artery / extra-anatomic bypass, 8mm graft (Gelweave, Terumo) • Median Re-sternotomy • Debranching of left common carotid artery, 8mm graft (Gelweave, Terumo) • Four-sites perfusion management • Proximalization of FET in Zone 1 (Evita open Neo straight 26-24-120mm, Artivion) • Eventually, SG distal extension guided by angioscopy, cTAG (Gore)
Materials:	E-vita open NEO/Artivion, E-wire / Artivion, cTAG /Gore, Gelweave / Terumo)

FEVAR with Zenith Cook Custom-made Device and BeFlared Bridging Stent

Speaker:
Professor Giovanni Pratesi
Chief of Vascular and Endovascular Surgery Clinic - Ospedale Policlinico San Martino - University of Genoa, Italy.

Patient Data:	Male, 78y/o, J*uxtarenal abdominal aortic aneurysm*
Operators:	Giovanni Pratesi, Martina Bastianon, Caterina Melani
Clinical Data:	Previous smoker, Hypertension, Dyslipidemia, Ischemic heart disease – 2023 IMA treated with CABG x 4, COPD (GOLD 3), Benign prostatic hyperplasia
Key Features:	*f*/bEVAR, BeFlared
Procedural Steps:	- Percutaneaous femoral access - Fusion 3D CT imaging - Graft deployment - Fenestration cannulation with SMART technique + Beflared - Retrograde branch cannulation + Begraft PLUS
Materials:	Tourguide steerable sheath 7Fr (Medtronic), Heli-Fx steerable sheath 22 mm 16Fr (Medtronic), BeFlared (Bentley InnoMed), Begraft PLUS (Bentley InnoMed), Custom-Made Device *f*/bEVAR (Cook Medical), Proglide (Abbott)
Imagery:	- Computed Tomography CT- scan - Fusion 3D CT imaging - CO2 Angiography - ConeBeam CT scan





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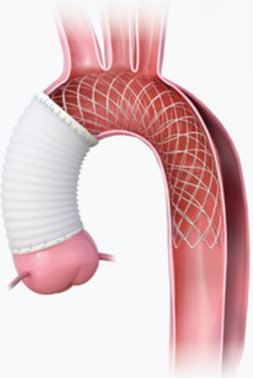

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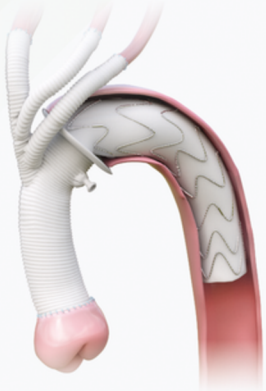

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JOTEC GmbH, Lotzenäcker 23, 72379 Hechingen, Germany, is the manufacturer of E-vita® Open Neo
Endospan Ltd, 4 Maskit St., Herzliya 46733, Israel, is the manufacturer of NEXUS ONE™, NEXUS DUO™, NEXUS TRE™

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