Innovative Approaches and Future Horizons to Ascending Aortic Pathologies: What can be done and what Problems Remain

Conflict of Interest:
Consultant:
- Medtronic
- Trivascular
- Silkroad Medical

TEVAR ASCENDING AORTA
- Transoesophageal Ultrasound
- Intraoperative Coronary-angiography
- Rapid Ventricular Pacing
- Transvalvular Manipulations

TRUE ASCENDING ANEURYSMS

ASCENDING AORTIC PSEUDO ANEURYSMS
- Previous Ascending repair = ideal case
- Tubular landing zone

TECHNICAL ISSUES: GRAFT KINKING
TRUE ASCENDING ANEURYSM

ASCENDING AORTIC ANEURYSMS

Ascending and Aortic Arch Aneurysm, 7 cm, symptomatic
prev. replacement of the aortic valve
Hypertension

TYP 2 ENDOLEAK VIA THE INNOMINATE ARTERY

Endoleaks
ENDOLEAK TYP 2 – COILING THE SAC AND THE INNOMINATE ARTERY VIA RIGHT TRANSBRACHIAL ACCESS + AMPLATZ OCCLUDER

COILING – NO ENDOLEAK

ASCENDING ANEURYSMS – TECHNICAL ISSUES – DEBRANCHING AND COIL EMBOLIZATION
OPTIMAL LENGTH OF THE GRAFT TO AVOID REGURGITATION

EMBOLIZING ASCENDING AORTIC THROMBUS

THROMBUS

TYPE A DISSECTION
Type A Dissection

The role of Bare Metal Stents

PSEUDO ANEURYSM

DEDICATED GRAFTS REQUIRED

APTUS STAPLER

TRUE ANEURYSMS - WRAPPING

RESULTS

- Patients: 30
- Mortality: 2
- Stroke: 1
- MI: 1
- Type I Leak: 2
- Technical Success: 28/30
- Mortality + MAE: 12.1%
- TAVI: 26.0%
CONCLUSION

• A wide range of ascending pathology can be treated with endografts

• Bare Metal Stents can be a real alternative in Type A Dissections

• Many True aneurysms are not ready for prime time yet!