O-009 Fenestrated Stent for Arch Repair for Acute Stanford Type A Aortic Dissection — A Conservative Solution for Complex Condition

Abdominal Aortic Diseases

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Introduction: The best surgical strategy for acute Stanford type A aortic dissection (aTAAD) involving the arch is controversial. We have used a novel method that antegrade implanting a previously fenestrated stent for arch repair, which have revealed acceptable results.

Methods: From December 2014 to December 2016, 81 aTAAD patients (52 male, 29 female) underwent ascending aorta replacement and fenestrated stent graft implantation. The fenestrated stent graft was implanted into the true lumen of aortic arch during the hypothermia circulation arrest period. The proximal descending aorta with the lumen of aortic arch during the hypothermia circulation arrest period. The proximal end of the stent graft was anastomosed to the distal end of the Dacron tube graft that replaced the proximal ascending aorta. All patients had contrast enhanced computed tomography angiography before discharge and during follow up.

Results: The cardiopulmonary bypass time was 213 ± 49 minutes, aortic cross-clamp time was 133 ± 39 minutes, and selective cerebral perfusion and lower body arrest time was 27 ± 8 minutes. There were 5 in-hospital deaths due to circulation failure, multiple organ dysfunction and pulmonary infection (with the mortality of 6.2%). 5 patients died during follow-up period, the main causes of follow-up mortality were cerebral events and aortic rupture. The surviving patients had contrast enhanced CT scans in the 3rd, 6th, and 12th months. The morbidity of complication of endoleak from suprarenal vessels was 5.6% (4/71), but all 4 patients were under follow-up without intervention because no dilation were discovered. The flow up CT revealed increasing false lumen thrombosis.

Conclusion: In patients with aTADD, the previously fenestrated stent graft results in excellent aortic remodeling of the aortic arch and descending aorta without increasing morbidity and mortality. The risk of endoleak in the aTADD is maybe the underlying complication. But it will be a conservative solution for arch repair in aTAAD, especially concomitant with severe conditions.

Disclosure: Nothing to disclose

O-010 Open Conversions and SemiConversions after EVAR: A 22-year Multicentre Experience

Abdominal Aortic Diseases

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Introduction: The majority of late endovascular abdominal aneurysm repair (EVAR) complications are usually managed by endovascular means. Nevertheless, a late open conversion (LOC) or semi-conversion (SC) is sometimes required. The aim of this study is to report the technical aspects of a multicentre experience of LOC and SC, and to compare early and long-term outcomes of these two treatments.

Methods: All-LOC and SC performed from 1996 to 2018 in 12 vascular centres were reviewed. LOC was defined as a total or partial endograft explantation >30 days after the initial EVAR; whereas open or laparoscopic surgery for endoleak (EL) correction with complete endograft preservation was considered SC. Conversions performed for endograft infection or thrombosis were excluded. Patients’ demographics, time elapsing from EVAR, indication for conversion, operative technique (endograft removal, type of reconstruction or EL correction), 30-day and in-hospital mortality were analysed. Long-term survival was evaluated by Kaplan-Meier method.

Results: Two hundred and twenty-four patients were included: 195 underwent LOC, 29 SC. Mean age at conversion was 75.2±7.7 years; 88% male. Patients underwent LOC or SC after a median of 45.9 months (range: 1.2-193.5). Reasons for LOC were: 61% type I EL, 24.1% type II EL, 7.2% type III EL, 7.7% endotension. Indications for SC were: 69% type II EL, 31% type I EL.

Reconstructions in case of LOC were performed with dacron grafts in 189/195 cases, axillo-bifemoral bypass in 3/195, cryopreserved arterial allografts in 2/195, and autologous superficial femoral vein in 1/195. SC were performed as follows: 13/29 sacculotomy and lumbar/inferior mesenteric artery (IMA) ligation, 7/29 hypogastric and/or IMA ligation, 6/29 sacculotomy associated with neck banding, 3/29 neck banding. Overall 30-day mortality was 8.5% (19/224), in-hospital mortality 12.1% (27/224). In-hospital mortality rates were significantly higher for patients undergoing LOC (27/195, 13.9%) compared to SC (0/29, P=0.03).

The estimated 1-year survival rates were 83.8% for LOC, and 78.3% for SC. Long-term survival was significantly lower for SC (67.5% vs. 43.7% at 5 years, log-rank P=0.02).

Disclosure: Nothing to disclose
During the median follow-up of 25.2 months (range 0.2-109.4), an EL after SC was still present in the 41.4% (12/29) of the cases; sac growth was recorded in 31% (9/29) of SC patients.

**Conclusion:** SC has an early survival benefit but an inferior late survival compared with LOC. The high rates of persistent EL and sac growth after SC impose an EVAR-like lifelong surveillance for this subgroup of patients.

**Disclosure:** Nothing to disclose

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**O-011 Familial Abdominal Aortic Aneurysms Don’t Occur Earlier in Life, Neither do they Progress More Rapidly — Observations from Two Population Based Screening Trials**

**Abdominal Aortic Diseases**

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**Introduction:** Familial Abdominal Aortic Aneurysm (fAAA) is believed to develop earlier in life and progress faster than non-fAAs. Consequently, current European guidelines recommend screening of first degree relatives to AAA patients from the age of 50. But this recommendation is based on only a few small sized studies. The objective of this study was to compare patient age and size of AAA at diagnosis, and progression of fAAA versus non-fAAs in two large population-based screening trials.

**Methods:** Study design: Combined population-based cross-sectional and cohort study.

**Materials:** 1,099 male participants screened positive for AAA in the VIVA- and DANCAVAS trials. Of these, follow-up data regarding growth rate, the need for aneurysm repair and death were available in the 617 cases found through the VIVA-study. Using two nationwide registers, the national patient register registering diagnosis and performed procedures, the cause of death register registering causes of death. Ultrasound- and CT-scans were used to determine the maximum abdominal aortic diameter. Data regarding family history, traditional risk factors, prior CVD and medication were obtained by questionnaire at baseline. Difference between the two groups were tested using Wilcoxon ranksum test. Multiple linear regression and multiple cox-regression were used to adjust for potential confounding from age, comorbidities and medication.

Finally, using the National Patient Register and Cause of Death register, we investigated the number of patients nationwide diagnosed with a ruptured AAA in different age groups between 1996 and 2016.

**Results:** Of the 1099 AAAs, 77 (7.0%) were fAAs. We observed no significant difference in age between the two groups, mean age being 70.2 and 69.9 years in the fAAA group and the non-fAAA group, respectively (p=0.99). We did not find any significant difference in median size of the aneurysms (fAAA=38.6 mm versus non-fAAA=36.4 mm. p=0.48). No significant difference was found in the growth rate of the aneurysms (adj. coef. -0.26 cm/y. 95% CI: -1.2 to 0.69), nor in the need for aneurysmal repair (adj. HR=1.10 95% CI: 0.67-1.78) or mortality (Adj. HR=0.43. 95% CI: 0.16-1.19).

Using data from the national patient register and cause of death register we found that 3.9 % percent of aneurysms ruptured before the age of 60 years old and 10.5 % before the age of 65 years.

**Conclusion:** In two large population-based screening trials we found no evidence corroborating the hypothesis that fAAs develop earlier in life or shows a more aggressive disease progression than non-fAAs. This questions the current guidelines of screening relatives to AAA patients from a much earlier age than the rest of the population.

**Disclosure:** Nothing to disclose

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**O-012 Endograft Device type is a Significant Risk Factor for Limb Graft Occlusion After Endovascular Aortic Repair of Infrarenal Abdominal Aortic Aneurysm**

**Abdominal Aortic Diseases**

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**Introduction:** Limb graft occlusion (LGO) is an uncommon yet serious complication after EndoVascular Aortic Repair (EVAR). It is reportedly influenced by several patient-specific anatomical variables. In a rapidly developing field of new