1. ORAL PRESENTATION - AORTA SATURDAY 24 - 08.00-10.00

OC78 THE ROLE OF CORONARY SINUS-SPARING TECHNIQUE FOR TREATMENT OF AORTIC ROOT ANEURYSM IN PATIENTS WITH BICUSPID AORTIC VALVE: PRELIMINARY LONG-TERM FOLLOW UP RESULTS

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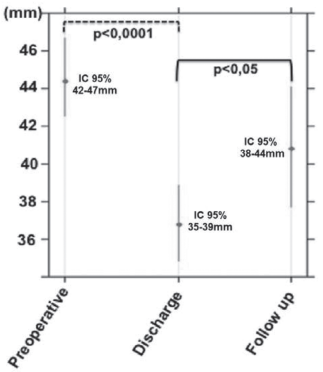
Background and Aim to analyze late outcomes and fate of aortic root in patients with bicuspid aortic valve with antero-posterior orientation (BAV-AP) and aortic dilation undergoing ascending aorta replacement extended to the non-coronary sinus (NCS) (coronary-sinus sparing technique).

Methods clinical and echocardiographic data of patients with BAV-AP scheduled for ascending aorta and root aneurysm repair and undergone ascending aorta replacement with coronary sinus-sparing technique at a single Center between 2000 and 2013 were retrospectively reviewed. Patients undergone redo operations or emergent surgery were excluded.

Results 69 patients (males n = 63, median age 66 years, IQ range 48–66) underwent coronary-sinus sparing technique: 50 (72%) required associated aortic valve replacement. There were no hospital deaths. Only 1 major postoperative bleeding requiring reintervention happened. At 15-years follow up (completeness 96%), 13 (19%) patients died, but only 4 (6%) due to cardiovascular deaths. Only 6 (9%) patients underwent cardiac reoperation (none for root dilation). No aortic dissections occurred. At follow up all patients are in good clinical status with only 7 (10%) patients with NYHA II-III. Echocardiographic analysis of available data showed significant reduction of root diameter after intervention, with slightly increase at follow up (Figure 1).

Conclusions coronary sinus-sparing technique with ascending aorta replacement extended to NCS in patients scheduled for aortic aneurysm repair with BAV-AP and asymmetrical root enlargement is a safe and low risk procedure, with good results in terms of late survival and freedom from root reintervention. This procedure reduces preoperative root diameter, granting nearly stable results at long-term follow up.

Figure 1. Longitudinal model of aortic root diameter estimation according to preoperative, discharge and follow up time.



OC25 ENDOVASCULAR SURGERY FOR TRAUMATIC AORTIC RUPTURE

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Background and Aim Traumatic aortic rupture (TAR) leads to immediate death in 75 to 90% of cases. Conventional surgery for TAR still carries high risk of serious complications and mortality. Thoracic endovascular aortic repair (TEVAR) has emerged as a valid alternative compared with open surgery

Methods From March 2001 to March 2018, out of 289 patients undergone TEVAR, 26 patients (9.0%) were treated for a TAR after road accident. To assess the risk it was evaluated the Injury Severity Score (ISS) in patients with multiple injuries and the American Society of Anesthesiologist classification (ASA class) to describe the perioperative physical status. 15 patients (57.7%) showed an unstable clinical picture (ISS ≥ 40). Four patients (15.4 %) had a delayed TEVAR, the remaining 22 (84.6 %) required an urgent or emergency treatment within 12 and 48 hours.

Results There were no operative death or surgical conversion. Any neurological complication, including paraplegia, was observed. One patients died after 48 hours for intracranial associated lesions. One vascular complication occurred requiring a rescue prosthetic ileofemoral bypass. Eleven patients (42.3%) required prolonged mechanical ventilation and two (7.7%) undergone CRRT. At follow-up (6–204 months), only one patient showed a late Type I endoleak, requiring a secondary TEVAR.

Conclusions TEVAR is a safe procedure in TAR patients, especially in unstable/emergent conditions. Moreover, TEVAR allows for prompt treatment of associated lesions in complex multitrauma patients. Most frequently the associated lesions especially of intracranial or intraabdominal organs became prognostically predictive of postoperative outcome.

OC03 AXILLARY VERSUS FEMORAL ARTERY CANNULATION IN AORTIC ARCH SURGERY: A SINGLE CCENTRE EXPERIENCE

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Background and Aim The best strategy of arterial cannulation during aortic arch replacement is still debated. We reported our experience with the Axillary and Femoral artery cannulation, comparing the incidence of major neurological events and in-hospital mortality.

Preoperative characteristics				
	Overall n=691	Axillary n=282 (30.1%)	Femoral n=409 (43.6%)	p-value
Age, years	63.02 (±11.72)	63.02 (±11.37)	63.01 (±11.96)	0.645
Sex (male)	483 (69.9%)	214 (75.9%)	269 (65.8%)	**0.006**
Hypertension	478 (69.2%)	203 (72.0%)	275 (67.2%)	0.213
Diabetes	37 (5.4%)	16 (5.7%)	21 (5.1%)	0.891
Smoking	226 (32.7%)	95 (33.7%)	131 (32.0%)	0.708
Coronary Artery Disease	98 (14.2%)	38 (13.5%)	60 (14.7%)	0.740
Ejection Fraction, %	57.24 (±7.35)	57.40 (±7.72)	57.12 (±7.09)	0.610
BAV	26 (3.8%)	8 (2.8%)	18 (4.4%)	0.391
Marfan	14 (2%)	9 (3.2%)	5 (1.2%)	0.126
Cerebrovascular Disease	48 (6.9%)	18 (6.4%)	30 (7.3%)	0.740
- Previous TIA	27 (3.9%)	10 (3.5%)	17 (4.2%)	0.836
- Previous Stroke	21 (3%)	8 (2.8%)	13 (3.2%)	0.975
Respiratory Insufficiency	21 (3%)	4 (1.4%)	17 (4.2%)	0.066
Renal Insufficiency	31 (4.5%)	11 (3.9%)	20 (4.9%)	0.667
Urgent/Emergent Status	333 (48.2%)	104 (36.9%)	229 (56%)	**0.001**
Type A Aortic Dissection	287 (41.5%)	85 (30.1%)	202 (49.4%)	**0.001**
Type B Aortic Dissection	13 (1.9%)	7 (2.5%)	6 (1.5%)	0.496
IMH	33 (4.8%)	11 (3.9%)	22 (5.4%)	0.475
PAU	4 (0.6%)	2 (0.7%)	2 (0.5%)	1.000
Degenerative Aneurysm	215 (31.1%)	84 (29.8%)	131 (32.0%)	0.588
Post Dissection Aneurysm	123 (17.8%)	86 (30.5%)	37 (9.0%)	**0.001**
Pseudoaneurysm	14 (2%)	6 (2.1%)	8 (2.0%)	1.000
Reoperation	172 (24.9%)	92 (32.6%)	80 (19.6%)	**0.001**
Intraoperative characteristics				
	Overall n=691	Axillary n=282 (30.1%)	Femoral n=409 (43.6%)	p-value
Hemiarch Replacement	342 (49.5%)	108 (38.3%)	234 (57.2%)	**0.001**
Total Arch Replacement	186 (26.9%)	66 (23.4%)	120 (29.3%)	0.101
ET	43 (6.2%)	14 (5.0%)	29 (7.1%)	0.329
FET	119 (17.2%)	94 (33.3%)	25 (6.1%)	**0.001**
TSA Reimplantation	346 (50.1%)	172 (61.0%)	174 (42.5%)	**0.001**
- Island (en-block)	156 (22.6%)	70 (24.8%)	86 (21.0%)	0.280
- Separeted	190 (27.5%)	102 (36.2%)	88 (21.5%)	**0.001**
CPB Time, min	208.80 (±63.04)	216.08 (±61.47)	203.78 (±63.69)	**0.001**
Cross Clamp time, min	136.07 (±48.59)	141.12 (±47.5)	132.71 (±49.10)	**0.016**
Circulatory Arrest Time, min	3.54 (±2.38)	2.51 (±1.74)	4.26 (±2.49)	**0.001**
ASCP Time, min	63.06 (±35.09)	69.19 (±34.46)	58.84 (±34.94)	**0.001**
Visceral Ischemia Time, min	51.81 (±21.53)	53.33 (±22.81)	50.77 (±20.56)	0.160
Temperature ,°C	24.46 (±1.84)	25.03 (±1.28)	24.06 (±2.04)	**0.001**
Postoperative characteristics				
	Overall n=691	Axillary n=282 (30.1%)	Femoral n=409 (43.6%)	p-value
PND	49 (7.1%)	19 (6.7%)	30 (7.3%)	0.881
TND	94 (13.6%)	49 (17.4%)	45 (11%)	**0.022**
Recurrent Nerve Damage	7 (1%)	5 (1.8%)	2 (0.5%)	0.204
Paraplegia	14 (2%)	10 (3.5%)	4 (1%)	**0.038**
In-hospital Mortality	91 (13.2%)	34 (12.1%)	57 (13.9%)	0.546

BAV: bicuspid aortic valve; TIA: transient ischemic attack; IMH: intramural hematoma; PAU: penetrating atherosclerotic ulcer; ET: elephant trunk; FET: frozen elephant trunk; TSA: sovra-aortic trunk; CPB: cardiopulmonary bypass; ASCP: antegrade selective cerebral perfusion; PND: permanent neurological deficit; TND: transient neurological deficit