From November 2007 to April 2011 we performed 170 minimally invasive mitral valve repairs. Among them one of us did perform this modified “respect but not resect” strategy for 70 patients. No resection was needed except for one endocarditis. Perioperative mortality was 0%. None SAM occur during or after procedure. During perioperative period no regurgitation or grade 1 regurgitation were found in 44 patients. Only one had a grade 2 regurgitation at discharge. During follow-up none redo surgery was needed for repair dysfunction, one patient scheduled for endocarditis.

This is a simple and easy procedure to perform, repair of mitral regurgitation is efficient. It is an easy way to evaluate mitral coaptation and avoid SAM without needing external evaluation before weaning bypass. Posterior leaflet is always “smiling” as in Dr Carpentier recommendations. Procedure is safe without needing external evaluation before weaning bypass.

In 28 patients, Echocardiography was done to evaluate SAM, leaflet motion was efficient. It is an easy way to evaluate mitral coaptation and avoid SAM during in-hospital mortality.

Conclusion: Surgery of infective endocarditis analyzed within a one-year population-based study


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Context: Observational studies showed that the rate of valve surgery in infective endocarditis (IE) increased over time and that it may be associated with lower in-hospital mortality.

Objective: To update the description of surgery in IE in France.

Design: Prospective population-based observational study conducted in 2008.

Setting: All medical facilities from 6 French regions representing 32% of the whole French population aged 18 years and older.


Results: 201 patients (40%) were operated on during the active phase of IE: 182 had left-heart (a right-sided) IE, 50% had no previously known heart disease, 23% had at least one prosthetic valve. Heart failure was present in 35% and ischemic stroke in 28%. IE was mitral in 45%, aortic in 40% and aortic + mitral in 15%. Echocardiography was positive for IE in 98%. Microorganisms were streptococcacaeae in 55% and staphylococcacaeae in 30%. Time elapsed between hospital admission and indication for surgery was 10±13 days, it was 15±13 days between hospital admission and surgery. Indication for surgery was hemodynamic in 71% of the patients, infectious in 40% and prevention of embolism in 54%. Women were operated less often than men (36% vs 49%; p=0.03). As compared to non-operated patients, operated patients were younger (58 vs 67 years; p=0.001), had more often heart failure (44% vs 28%; p=0.0006), vegetation larger than 10 mm (82% vs 58%; p=0.001), abscess (39% vs 13%; p=0.0001) and less often mitral IE (33% vs 55%; p=0.001); distribution of microorganisms was not statistically different; in-hospital mortality was lower (20% vs 26%) but that was not statistically significant.

Conclusion: Surgery is frequently indicated in IE. There is a trend toward lower in-hospital mortality in operated patients.

Aims: Transcatheter aortic valve implantation (TAVI) is an emerging technique for the treatment of severe aortic stenosis (AS) in high-surgical-risk patients. It is unclear whether it compares favourably with surgical aortic valve replacement (SAVR) in a high-risk non selected population.

Methods and Results: This observational prospective cohort study included all consecutive high-risk patients with severe AS treated by SAVR or by TAVI. Trans femoral (TF-TAVI) approach was the first access option. Trans apical (TA) approach was used if TF access contra-indicated. Co-primary end points were 1 year and 30-day all-cause mortality. Results were described using Valve Academic Research Consortium (VARC) definitions.

143 patients were included: 58 underwent SAVR, 60 TF-TAVI and 25 TA-TAVI. Mean baseline characteristics were the same in the 3 groups except for risk scores and NYHA status, worse for TF- and TA-TAVI patients than for SAVR patients. All-cause mortality in SAVR, TF-TAVI and TA-TAVI groups were respectively 25.9%, 18.3% and 36% at 1 year (p=0.22); and 17%, 5% and 16% at 30 days (TF-TAVI vs SAVR: p=0.034, TA-TAVI vs SAVR: p=0.999). At 30 days myocardial infarction and major stroke only occurred in SAVR group (7% and 2% respectively). Life-threatening and/or major bleedings were 75% in SAVR group, 53% and 80% in TF and TA-TAVI groups (p=0.016 TF-TAVI vs SAVR, p=0.624 TA-TAVI vs SAVR). Major vascular complications were 8% in the TF-TAVI, 12% in the TA-TAVI (p=0.860). 6 peri-procedural deaths of the SAVR group necessitated ventricular pacing for haemostasis or pericardial drainage, 1 year and 30-day NYHA functional status and aortic prostheses mean gradient were the same in all groups.

Conclusion: This observational study provide a snapshot of the 1 year and 30-day outcome after modern conventional SAVR and TF- or TA-TAVI, in an “real-life” high-risk AS population. It is also probably one of the first studies to describe this outcome using VARC endpoints definitions.

Invasive assessment of atrioventricular conduction changes following transcatheter aortic valve implantation with self-expandable or balloon-expandable prosthesis

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Background: Atrio-ventricular block (AVB) is one of the complications after transcatheter aortic valve implantation (TAVI), and is more frequent after implantation of a Medtronic CoreValve (MCV) than after implantation of an Edwards Sapien prosthesis (ES).

The aim of this prospective study was to quantify and compare by invasive measurement the exact influence of TAVI with MCV or ES valve on atrioventricular conduction.

Methods: between February 2010 and March 2011, consecutive patients who underwent TAVI with a MCV or an ES valve were included in this prospective, single center study. The His-ventricle (HV) interval was measured during an electrophysiology study (EPS) before and at least 4 days after the procedure. Patients with pre-existent permanent PM implanted for AVB were excluded

Results: 60 patients were included. 25 (42%) were treated with a MCV, and 35 (58%) with an ES valve. Mean age was 83±6 years, 62% men with no significant difference of baseline clinical, ECG, echocardiographic data, Logistic EuroScore and STS Score between MCV and ES groups. There was no non-cardiac death, HV measurement was possible in all patients. 19 patients (32%) needed implantation of a permanent PM. Indication was persistent complete AVB in 12 patients (20%) and transient high grade AVB in 4 patients (7%). PM implantation was required in 6 patients (17%) with ES valve and 13 patients (52%) with MCV (Odds Ratio: 6.8, (95% CI 1.9-24.8) p<0.01). HV interval remained stable (increased duration ≤5 ms) in 10 patients (30%) with ES valve and in 5 patients (20%) with MCV (p=0.15). HV interval was prolonged by 10ms or more after procedure in 12 patients (35%) with ES valve and in 17 patients (68%) with MCV (Odds Ratio: 5.95 (95% CI 1.5-16.9) p<0.01).

Conclusion: This study supports the fact that atrioventricular and particularly infrahisian conductive tissue is frequently impaired after TAVI. This damage is more frequent and more severe with MCV compared with ES valve.

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