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Aortic valve repair using external aortic ring annuloplasty: a multicentric analysis of outcomes

Objective

An untreated dilated aortic annulus is a major risk-factor for failure of aortic valve sparing or repair in either bicuspid or tricuspid valve. Like the annuloplasty for mitral valve repair, aortic annuloplasty aim at reducing the annulus, in order to increase the coaptation height thus protecting the repair. Objective of this study is to analyze multicentric outcomes of a standardized and physiological approach to aortic valve repair according to each phenotype of dystrophic ascending aorta. Subvalvular aortic annuloplasty was systematically added using an external aortic ring to reduce annulus diameter when ≥ 25 mm.

Methods

Data will be collected from the multicentric international AVIATOR registry (AorticValve repair InternATiOnal Registry) from all consecutive patients who had an aortic valve repair combine with an external aortic ring annuloplasty. It will combined patients with root aneurysm who underwent Remodeling with external ring, with tubular aorta aneurysms who underwent supra-coronary grafts with external open ring and isolated isolated aortic insufficiency (AI) who underwent isolated AI with external open ring annuloplasty.

Results expected

Analysis will described patients characteristics including type of valve and degree of preoperative AI, rate of cusp repair and techniques. Early and late mortality and morbidity will be reported according to current guidelines for reporting valve related events and will report actuarial survival, freedom from reoperation; from MAVRE, Freedom from AI ≥ grade 2 and from AI≥ grade 3 among each phenotype of aorta and type of valve. Effective height assessment and different type of external ring such as dacron, extra aortic (coroneo Inc) or simplicity band will be also analyzed by subgroup.