



Aortic valve repair

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Prof. Schafers stresses on the advantages of the aortic valve repair (AVr) as it reduces the complications related to the valve [1] and increases the event-free survival [2]. Good substrates for AVr are the bicuspid aortic valves [3], and tricuspid aortic valves, if the mechanism of the leak is aortic dilatation/aneurysm or if there is prolapse of only one or two cusps. Poor substrates are calcified valves. If there are calcific plaques on the leaflet, there is a 30% chance of recurrent calcific aortic stenosis (AS) within ten years. Second group of poor substrate are the ones with retracted cusps and with not enough tissue, specially found in rheumatic population. Augmenting with pericardium is a choice, but unfortunately 50% of these pericardial patches calcify within 5 years. Under the third group is active infective endocarditis, specially in conjunction with bicuspid aortic valves, which fail in almost 40% of patients within five years, if taken up for repair [3].

Repair is more suited for aortic regurgitation than AS. In the latter, congenital AS, which is unicuspid, lends itself for repair, but once calcification sets in, they have poor intermediate term results. Prof. Schafers opines that associated aortopathy is not that important a factor. Even if the dilatation of the root is significant, one can replace it, with good stability of the valve and satisfactory long-term results. More important, he feels, is the commissural orientation of the bicuspid valve. He laments the fact that this has not been included in the guidelines. However, the saving grace is that the commissural angle can be changed with a repair procedure. By preserving

commissural configuration, the early competence rates have been improved and the durability of the repair increases. The mobility of the fused cusps and the systolic gradients also improve [3].

Prof. Schafers goes on to define what an aortic annulus is. To an echocardiographer, it is the nadir of the aortic cusps. This corresponds to the basal ring described by Anderson and is quite distinct from the left ventricular—aortic junction. He stresses on the need for stabilization of the AV by doing an annuloplasty and recommends suture annuloplasty, done from outside the aorta, using Poly Tetra Fluoro Ethylene (PTFE) felt.

References

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