Commentary

Van Son and colleagues described their experience with a modified technique of aortic valve reimplantation that Feindel and I¹ described in 1992. Their rationale to retain more aortic sinus tissue than we originally described is to prevent leaflet abrasion. However, the aortic leaflets should not touch the Dacron graft in systole when aortic valve reimplantation is correctly performed. This would occur only if the graft used to reimplant the aortic valve was too narrow in relation to the sizes of the aortic leaflets.

I have some concerns about retaining as much aortic sinus tissue as suggested by the authors. First, very few patients with aortic root aneurysms have enough cephalad displacement of the left main coronary artery to allow its reimplantation at a level above the commissures of the leaflet, as suggested in their article. Thus, more often than not, the left aortic sinus has to be excised as we described to permit a safe, tension-free reimplantation of the left coronary artery. Second,

because they resuspended the aortic valve with a single suture line at the level of its sinotubular junction, the mechanical stresses of diastole will be transmitted to the upper part of the commissures, which in turn may cause leaflet elongation, fenestrations, or even detachment of the arterial wall from the Dacron graft.

Of 185 aortic valve-sparing operations we have performed during the past decade, reimplantation of the aortic valve was used in 42 patients. Most of these patients had annuloaortic ectasia with or without acute type A aortic dissection. Aortic valve reimplantation is safer than remodeling of the aortic root in patients with friable tissues, such as those with the Marfan syndrome or acutely dissected aortic roots.² We had a single failure resulting from excessive growth of a teenager with the Marfan syndrome. The remaining patients remain in stable condition without any change in valve function.

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REFERENCES

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2. David TE. Remodeling of the aortic root and preservation of the native aortic valve. *Op Tech Cardiac Thorac Surg* 1996;1:44-56.

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