



## ATRIAL SEPTAL DEFECTS

■ *To the Editor:* I read the article by Mandelik and colleagues<sup>1</sup> in your journal with interest. It was worth highlighting the right atrial and ventricular dimensions in this study, as these decrease, often strikingly, after repair in childhood.<sup>2</sup> However, in adults these remain abnormal in about 80% of cases with an abnormal right ventricular ejection fraction. These findings may also be relevant to late-onset postoperative supraventricular arrhythmias and the persistence of residual symptoms.<sup>3,4</sup>

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■ *Reply:* The comments of Dr. Siddiqui are interesting. A number of studies have demonstrated that right ventricular dimensions decrease significantly after atrial septal defect closure in childhood, but that is also true in many adults. I disagree with Dr. Siddiqui's comment that 80% of adults have an abnormal right ventricular ejection fraction after car-

diac surgery. In 1981, we presented data demonstrating that fewer than 50% of adult patients continue to have some dilatation of the right ventricle.<sup>1</sup> When one reduces the volume of blood flow in the right ventricle following atrial septal defect closure and the right ventricle remains dilated, the right ventricular ejection fraction will fall, but that does not mean that these patients have significant right ventricular dysfunction.

No one has demonstrated the causes of the late postoperative supraventricular arrhythmias. Our review suggests that this arrhythmia is more common (23% prevalence of late atrial fibrillation) than is a persistently dilated right ventricle in either children or adults. This raises the question of whether surgery itself in the atrium, the natural history of the disease, an aging population, or an unknown persistent left-to-right shunt at the atrial level might be the most important predisposing factor.

Although atrial septal defect is one of the most common congenital defects we see, we need to obtain additional long-term follow-up information regarding right ventricular function, the development of late postoperative atrial arrhythmias, and the worrisome phenomenon of late stroke.

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