

Letter to the Editor

Dear Sir,

Re: The timing of surgery for asymptomatic severe aortic or mitral regurgitation for children

May I request the assistance of your readers in clarifying a subject which has always bothered me? This is the timing of surgery for chronic asymptomatic but severe mitral or aortic regurgitation in children. We know it is necessary to perform surgery in these patients prior to the onset of left ventricular dysfunction. Such myocardial dysfunction initially occurs at a subclinical level, and may become irreversible before the development of symptoms.

In our daily echocardiographic experience, we have encountered measurements that are given by some¹⁻³ as predictors of poor long-term prognosis, and as indications for correction of mitral or aortic regurgitation (Table 1). Comparable values, however, are cited by others as being found in normal healthy children having no cardiac problems.⁴⁻⁵ It is known, furthermore, that delaying surgery in children with significant mitral regurgitation until the onset of severe symptoms does not increase the risk for long-term ventricular dysfunction.⁶

In my opinion, opting to perform surgery in asymptomatic children based only on the measurements

shown in Table 1 is inadequate, and may sometimes be wrong. It seems to me that further studies are needed to determine the correct values for ventricular function in these children. Do any of your readers know of such values, or can they help in any other way?

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Table 1. Echocardiographic measurements.

End diastolic dimension of left ventricle	>38-40 mm/m ²
End systolic dimension of left ventricle	>26 mm/m ²
Shortening fraction (for mitral regurgitation)	<30-33%