Letters to the Editor

Reoperation after relief of congenital subaortic stenosis

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We read with interest the paper by Dodge-Khatami et al. [1] on risk factors for reoperation after relief of congenital subaortic stenosis. We compliment them on their extensive statistical analysis and would like to discuss their results as well as our own [2]. Preoperative left ventricular outflow tract (LVOT) gradients in their series ranged from 5 to 120 mmHg, which would lead us to question the need for operation with a preoperative gradient of only 5 mmHg (unless the stenosis was mild or combined with other lesions), their definition of significant postoperative gradients and their threshold for a reoperation. In our experience, and in those of others [3], a peak instantaneous gradient ≥30 mmHg is considered significant even in the presence of normal left ventricular (LV) function. Progression of LV hypertrophy, LV dysfunction and new aortic incompetence may necessitate operation regardless of the gradient.

At a median follow-up of 2.6 years (range 0.3–7.5 years), the authors [1] report a reoperation rate of 19% (n = 11), of which 12% (5/43) were in the simple group and 40% (6/15) were in the complex group. However, there is no detailed information about patients with immediate postoperative gradients, which may significantly correlate with long-term results [4].

Our experience with discreet subaortic membrane (SAM) consisted of 45 patients with a preoperative gradient of 50–154 mmHg (86.5 ± 33.2 mmHg); 19 of these had significant LV dysfunction. Transaortic resection of SAM was performed in all patients and was combined with the excision of a wedge shaped segment of septal muscle underlying the membrane. There were no early or late deaths and our follow-up ranged from 18 to 113 months (mean 67 ± 4 months). Only four patients had significant gradients. In all these patients, the immediate postoperative gradients were 25, 20, 25 and 8 mmHg, respectively and progressed to 30–60 mmHg over a 2–5 year period. The actuarial freedom from significant gradients was 89.9 ± 0.4% at 96 months. In one of these, the LVOT was small and this patient is scheduled for an aortic root enlargement procedure.

Although the scar formation from the original excision may fix the diameter of the LVOT and prevent it from growth and lead to significant gradients, regrowth from the region of the septum that was the initial site of fibromuscular obstruction may be responsible for the recurrent gradient [3–5]. Therefore we advocate the routine addition of myomectomy in these patients. Dodge-Khatami et al. [1] do not make this recommendation because they did not find it to be statistically significant, but they too observed lower reoperation rates when myomectomy was added to the removal of the SAM. An argument advocated by the authors against myomectomy is the risk of development of complete heart block or iatrogenic ventricular septal defect. We did not observe this. However, we must acknowledge that our patient population was much older as compared to theirs (2–23 years, median 8 years). Our follow-up period is relatively longer as compared to other series [1,3–5], but because recurrent obstruction may develop after many years in these patients, reoperation remains an issue.

References


The authors of the original paper [1] were invited to comment on this Letter to the Editor but declined the offer.

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