Repair, Repair then Replace

Valvuloplastía, valvuloplastía y luego reemplazo

VÍCTOR O. MORELL, EUGENE S. WEINER

Diseases of the mitral valve that lead to significant valve insufficiency in the pediatric population are quite variable, including: congenital anomalies of the valvular or subvalvular apparatus, acquired systemic illnesses, connective tissue disorders, and anomalies of the coronary arteries. We can all agree that the ideal surgical management of children with mitral valve regurgitation is valve repair. Better short and long-term survival has been reported in children undergoing mitral repair when compared to valve replacement. (1)

In this issue of this Journal, Sepulveda and associates (2) report their experience with mitral valve repair in 65 pediatric patients with moderate to severe valve insufficiency (MR≥2+). The main purpose of this study was to elucidate risk factors leading to a mitral valve reoperation and/or recurrence of significant valve regurgitation. There was no operative mortality in this series, and with a mean follow-up of just over 2 years in 52 patients, there were 9 reoperations. On multivariate analysis they identified the following risk factors for poor outcome after mitral valve repair: rheumatic fever, mitral annulus diameter ≥5SD and immediate postoperative residual MR ≥ 2+. Interestingly, neither patient weight or age proved to be important.

The findings in this publication are consistent with previous studies that have identified hemodynamically significant residual mitral valve regurgitation and rheumatic fever as risk factors for reoperation after mitral valvuloplasty. (3-5) Also, a severely dilated mitral annulus has been associated with the presence of significant mitral valve regurgitation (6), which likely reflects the severity of the underlying valve pathology. One of the characteristic changes observed with rheumatic heart disease is the development of mitral annular dilatation; therefore it is not surprising that these two “risk factors” where noted in this study. The fact that neither patient weight or age proved to be important factors for a poor outcome might just suggest that the underlying valve disease is what really determines the end result of a mitral valvuloplasty and not the size of the patient.

Sepulveda and associates correctly conclude that mitral valvuloplasty is a safe and effective surgical technique for the management of mitral regurgitation in children. Not all diseased mitral valves can be repaired, but we should not shy away from trying.

Conflicts of interest
None declared.
(See authors’ conflicts of interest forms on the website/Supplementary material).

REFERENCES