

Balloon Valvuloplasty in Pakistan

The era of balloon valvuloplasty has started in Pakistan (Pakistan Heart Journal Vol. 20 No. 4, Oct. – Dec. 1987. Percutaneous Balloon Pulmonary Valvuloplasty: A. Lal, A. Faruqui and K. Aziz).

Presently, balloon valvuloplasties are being routinely done at least in Karachi and Lahore. What then appears the status and future of balloon valvuloplasty in our environment?

While morbidity, mortality and long term effectiveness are always prime considerations in evaluating an intervention, cost-effectiveness is also a very major factor entering our decision making. Each balloon costs about Rs. 10,000.00 and re-use is not only prohibited by the manufacturer but also makes local complications more likely with the unfolding and stiffening of the balloon after use, besides increasing the risk of balloon rupture especially during left heart procedures. The total cost of the procedure would then be anywhere from Rs. 15,000.00 to Rs. 30,000.00 depending on the number and size of balloon catheters that are used.

As Tricuspid Stenosis is a rarer situation, for the most part we are talking about Aortic Stenosis, Mitral Stenosis and Pulmonic Stenosis. Let us examine each of these situations. Balloon dilatation of Aortic Stenosis in adults can be done reasonably safely and produces adequate immediate relief of gradient. However, the long term followup has shown a very high rate of recurrence of Aortic Stenosis within six months. While balloon dilatation for Aortic Stenosis remains a viable alternative, just like Aortic Valvotomy in adults, it may prove increasingly disappointing. Also, the cost factor of Aortic Valve Ballooning followed by Aortic valve replacement may not prove to be cost effective for us compared to Aortic valve surgery at first go. As far as Mitral Valve Ballooning is concerned, a transeptal technique is usually necessary. One balloon is needed for atrial septal dilatation and one or two balloons needed for mitral valve itself. This procedure produces results that are not superior to closed mitral commissurotomy and many times more expensive than closed mitral valve commissurotomy in our country. Therefore, for all practical purposes, Balloon Mitral Valvuloplasty is not the preferred treatment for Mitral Stenosis in our circumstances. Finally, Pulmonary Stenosis has ordinarily required open heart surgery for correction. Balloon Pulmonary Valvuloplasty, usually with a single catheter, has been uniformly successful with good results and followup, and, is the treatment of choice for us.

In conclusion, Balloon Valvuloplasty has made a significant impact in the way purely stenotic valve lesions are being treated. Ballooning is the treatment of choice for Pulmonary Stenosis. It is an option in some cases of Aortic Stenosis. Finally, despite the theoretic advantage, Ballooning is not cost effective in our circumstances for the treatment of Mitral Stenosis.

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Editor.*