Long-Term Results of Percutaneous Balloon Mitral Valvuloplasty Using the Inoue Balloon Catheter Technique

To the Editor:

I read with interest the article on long-term follow-up after percutaneous mitral valvuloplasty with the Inoue balloon catheter by Hernandez et al.1 They reported a restenosis rate of 39% at 7 years.

My colleagues from China and I recently reported our experience with the same technique in a follow-up study up to 11 years in the first 202 patients2 among the original 4832 patients treated in China.3 The restenosis rate was 8%, which is very respectable and actually better than that after surgical closed commissurotomy (25% to 28%).3 Why the restenosis rate in the Chinese patients is much lower than that in the Spanish patients is unclear.

Our experience as well as a series of recent reports of excellent long-term results have strengthened the previous conclusion that percutaneous mitral valvuloplasty using the Inoue balloon technique should be the procedure of first choice in most patients with mitral stenosis worldwide.4

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Response

Dr Cheng remarks on the discrepancy between the restenosis rate reported in our article1 (39% at 7 years) and that reported by him and his colleagues2 (8%) after percutaneous valvuloplasty with the Inoue balloon. They speculate whether or not baseline differences in Spanish and Chinese populations may account for such a striking difference.

We believe that this difference is more apparent that real. Our restenosis rate after a mean follow-up of 39±23 months was 10%, rather similar to that reported by them (8% after 3.7±2.1 years). A different methodology may account for these differences: (1) Our analysis took under consideration not only the incidence of restenosis in the whole series, but the time after the procedure as well. Kaplan-Meier curves for restenosis (defined as loss of 50% of gain by Doppler echocardiography) revealed a restenosis rate of 4% at 3 years, 18% at 5 years, and 39% at 7 years. (2) In our series, not all patients included in the restenosis definition were severely symptomatic (only 30 of 56, or 53%, were in class III), a requisite included in the definition of restenosis by Cheng et al.

Nevertheless, as suggested by Dr Cheng, there were several differences in baseline populations. Our patients were older (54±13 versus 38±12 years) and more frequently in atrial fibrillation (57% versus 22%) than those in the Chinese series. Although immediate and last follow-up results are difficult to compare because we reported Doppler data and Cheng et al reported hemodynamic data, the repeat valvuloplasty rate was 1% and 2% in both series, and the mitral replacement rate was 10% and 6% in the Spanish and Chinese series, respectively.

We fully agree with Dr Cheng that at the present time, percutaneous mitral valvuloplasty with the Inoue balloon is the treatment of choice for most patients with symptomatic mitral stenosis worldwide.

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