Therapeutic options in patients with obstructive hypertrophic cardiomyopathy and severe drug-refractory symptoms

In their editorial comment, Fananapazir and McAreevey (1) to our mind provide only a very selective overview of the available literature on the therapy of patients with HOCM. For patients with HOCM who fail to benefit from drug therapy, they consider DDD pacing or chemical septal ablation first choice, preferably as part of a randomized prospective trial. “Only patients who fail to benefit from one of these two therapies may be considered for the alternative treatment modality or for cardiac surgery” (1).

However, Fananapazir and McAreevey themselves mention the high complication rate of chemical septal ablation with a high need for temporary and permanent pacemaker implantation and potential late complications such as increased incidence of bradyarrhythmias and tachyarrhythmias, as well as aggravation of left ventricular (LV) dysfunction. Despite these remarks and the very small and short experience with this technique, they surprisingly suggest chemical septal ablation as one of the two first therapeutic choices (1).

Regrettably, their description of the literature of surgery for HOCM is only a summation of alleged complications. “A high mortality rate—although declining—and a high complication rate such as ±5% need for permanent pacemakers, ventricular septal defect, aortic regurgitation, progressive LV dysfunction as well as a 1% to 2% cumulative annual mortality” are their reasons for not considering surgery as a first choice therapeutic option (1). However, they apparently overlooked our publication in Circulation in 1994 on 38 patients who underwent Morrow septal myectomy (2). In this group there were no perioperative deaths and only one patient died during follow-up (mean 6.8 years) due to a myocardial infarction (2). Meanwhile, we have extended our series to 55 patients with no additional perioperative mortality. The complication rate in the whole group remains low: only two permanent pacemakers and one well tolerated, small, ventricular septal defect. During follow-up only one patient needed aortic valve replacement for aortic regurgitation and none of the patients experienced progressive LV dysfunction. All but one patient experienced a major functional improvement (2). These results show that surgery is an excellent therapeutic option.

In our opinion DDD pacing has to prove to be at least as good as surgery to become the number one therapy. With respect to the results with DDD pacing, some comments have to be made. First, the patients with DDD pacing have a higher mean rest gradient (35 mm Hg) than patients who underwent septal myectomy (15 mm Hg). Such a high rest gradient of >15 mm Hg has been shown to be an independent predictor of mortality after myectomy. Second, long-term follow-up data of pacing are still limited (1). Third, not all patients improve with pacing and some even become worse (1,4). Lastly, also the role of a placebo effect is suggested in a number of patients with pacing (4).

Therefore, the proposed randomized, prospective trial should not compare DDD pacing with chemical septal ablation but should study the results of surgery versus new treatment modalities.

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References

CORRECTION


On page 1032, the last sentence before the Discussion section should have read, “The survival model (log-rank test) showed significantly higher event-free survival in patients who underwent the exercise training program (p < 0.001).” We regret this printing error.