Effect of institutional experience on outcomes of alcohol septal ablation for hypertrophic obstructive cardiomyopathy.

Abstract

BACKGROUND: The current American College of Cardiology Foundation/American Heart Association guidelines on hypertrophic cardiomyopathy state that institutional experience is a key determinant of successful outcomes and lower complication rates of alcohol septal ablation (ASA). The aim of this study was to evaluate the safety and efficacy of ASA according to institutional experience with the procedure.

METHODS: We retrospectively evaluated 1310 patients with symptomatic obstructive hypertrophic cardiomyopathy who underwent ASA and were divided into 2 groups. The first-50 group consisted of the first consecutive 50 patients treated at each centre, and the over-50 group consisted of patients treated thereafter (patients 51 and above).

RESULTS: In the 30-day follow-up, there was a significant difference in the occurrence of major
cardiovascular adverse events (21% in the first-50 group vs 12% in the over-50 group; P < 0.01), which was driven by the occurrence of cardiovascular deaths (2.1% vs 0.4%; P = 0.01) and implanted pacemakers (15% vs 9%; P < 0.01). In the long-term follow-up (5.5 ± 4.1 years), the first-50 group was associated with a significantly higher occurrence of major adverse events (P < 0.01) and higher cardiovascular mortality (P < 0.01). Also, patients in the first-50 group were more likely to self-report dyspnea of New York Heart Association class III/IV (16% vs 10%), to have a left ventricular outflow gradient > 30 mm Hg (16% vs 10%) at the last clinical check-up (P < 0.01 for both), and a probability of repeated septal reduction therapy (P = 0.03).

CONCLUSIONS: An institutional experience of > 50 ASA procedures was associated with a lower occurrence of ASA complications, better cardiovascular survival, better hemodynamic and clinical effect, and less need for repeated septal reduction therapy.


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