

A NOVEL METHOD FOR SEPTAL ABLATION: GLUE (CYANOACRYLATE) SEPTAL ABLATION

i2 Oral Contributions

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Background: Alcohol septal ablation has been shown to be an effective treatment in hypertrophic obstructive cardiomyopathy (HOCM) patients who are refractory to medical treatment. We describe another successful technique for septal ablation technique with glue (cyanoacrylate) which is particularly useful in patients with collateral formation to the right coronary artery in whom alcohol ablation is contraindicated.

Methods: In our method left coronary ostium was cannulated with 6-8 F guiding catheter. A 0.014-in. Guide wire was introduced through the catheter, and advanced into the septal branch. Septal branch was cannulated with a 4 F catheter and a microcatheter was advanced deep enough into the septal artery through the 4 F catheter. Glue was mixed with contrast medium to make the occlusion of septal artery visible easily by fluoroscopy. Cyanoacrylate mixture was instilled through the microcatheter into the septal artery slowly. Microcatheter was pulled back into the 4F catheter, and all the system was withdrawn together. Immediate polymerization prevents leak into the left anterior descending coronary artery, and it is particularly useful in patients with collaterals to the right coronary artery in whom alcohol ablation is merely contraindicated.

Results: Glue septal ablation was performed in 16 patients (3 patients had collateral branches to posterior descending artery). After the procedure peak left ventricular outflow gradient were reduced significantly both in cardiac catheterization (64.4 ± 15.4 vs. 10.6 ± 5.9 mmHg, $p < 0.001$) and doppler echocardiographic measurements (75.9 ± 21.5 vs. 13.0 ± 9.1 mmHg, $p < 0.001$). There was no major complication (complete heart block, ventricular arrhythmias and distant infarction) during and after the procedure.

Conclusions: Glue septal ablation seems to be an efficient and safe approach in HOCM especially in patients with collateral formation. Further experience is needed in order to assess the long-term efficacy and safety of this technique.