

## Accessing a Septal Branch of the Left Anterior Descending for Alcohol Septal Ablation Using the Venture™ Catheter for Wire Placement



*Presented by:*

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**INTRODUCTION:** Associate Professor Mark Webster is Director of the Cardiac Catheterization & Intervention Unit and Dr Suwatchai Pornratanarangi is Interventional Cardiology Fellow, Green Lane Cardiovascular Service, Auckland City Hospital, Auckland, New Zealand.

**PATIENT HISTORY:** An 84-year-old woman presented with breathlessness and chest discomfort sometimes associated with a pulsating sensation in the throat. Echocardiography demonstrated typical features of hypertrophic cardiomyopathy with a basal septum measuring 2.0 cm. There was systolic anterior motion of the mitral valve and a marked but dynamic left ventricular outflow tract gradient. Alcohol septal ablation was planned.

### CARDIAC CATHETERIZATION AND

**INTERVENTION:** Initial hemodynamic measurements demonstrated a mean resting left ventricular outflow gradient of 44 mmHg, increasing to over 100 mmHg following an ectopic beat. A 6 French XB 4.0 guide catheter was used to engage the left coronary ostium. Angiography in the right anterior oblique (RAO) cranial projection demonstrated a small first septal branch and a larger second septal branch (Figure 1). Attempts were made to cannulate the second septal branch using various 0.014" guidewires. A 40% stenosis in the left anterior descending immediately upstream of the septal branch caused difficulties, with wire prolapse occurring into the left anterior descending each time the ostium of the septal branch was engaged.

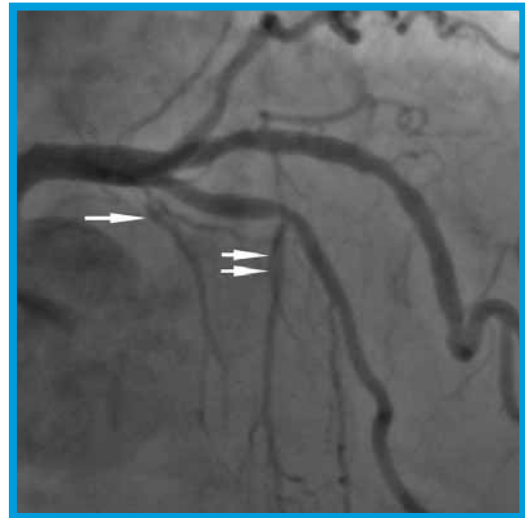


Figure 1  
RAO cranial angiogram demonstrating a small first septal branch (single arrow), and a larger second septal branch (double arrows) arising just distal to a moderate left anterior descending stenosis.

The Venture™ Wire Control Catheter was then advanced over the wire into the proximal left anterior descending to the level of the septal branch. A combination of catheter rotation and tip deflection were employed, with the guidewire at the Venture™ catheter tip. Once aligned with the septal branch the guidewire was readily advanced down the septal vessel. (Figure 2).

A 1.5 x 9 mm Maverick® over the wire balloon was then advanced into the proximal septal branch (Figure 3). Myocardial contrast echocardiography was performed using Optison™ injected through the central lumen of the Maverick® balloon. This septal vessel supplied septal myocardium distal to the site of maximal left ventricular flow acceleration and also supplied right ventricular myocardium.

The smaller first septal branch was then cannulated. Repeat myocardial contrast echocardiography showed that this supplied the septum at the site of maximal obstruction. 1.5 ml of 100% alcohol was injected with good effect.

**CONCLUSION:** The Venture™ catheter enabled access to a difficult-to-cannulate septal branch vessel. The vessel arose at an acute angle to the left anterior descending and access was made difficult by a moderate left anterior descending lesion immediately upstream of the branch vessel. This device is a useful addition to the inventory of all catheterization laboratories undertaking challenging interventional procedures.

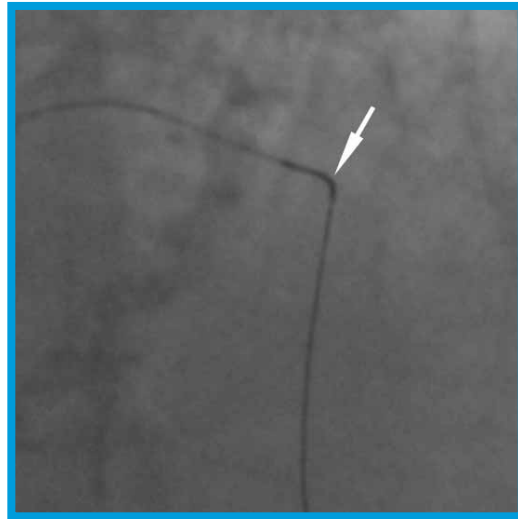


Figure 2  
The Venture™ catheter tip in deflected configuration (arrow), with the guidewire in the septal branch.

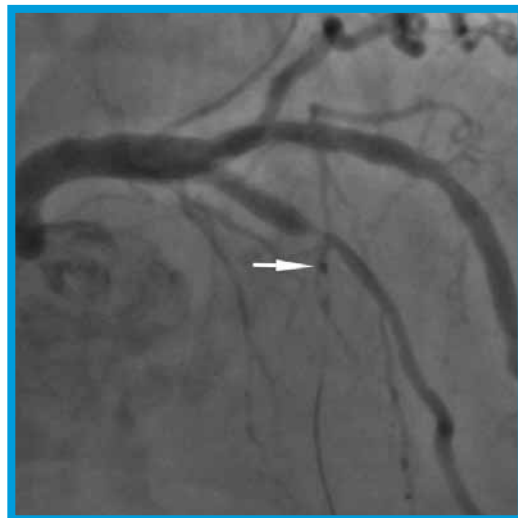


Figure 3  
The 1.5 mm Maverick® balloon (arrow) inflated in the proximal portion of the septal branch vessel.

#### Rx Only

**Brief Summary:** Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use.

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

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