

## LETTER TO THE EDITOR

# First Percutaneous Catheter Intervention for Left Main Coronary Artery Disease: 30 Years Ago

At this time when we celebrate the birth of *JACC: Cardiovascular Interventions*, it is worth remembering that the first angioplasty for left main coronary artery disease (CAD) was performed 30 years ago by Andreas Gruentzig.

Gruentzig described the first 5 cases of percutaneous catheter intervention (PCI) in awake humans in a Letter to the Editor (1) (Fig. 1). Although the legend to the figure stated “Details of patient 3,” it was actually “patient 4” (2) who was 43 years old and had 80% stenosis of the main left coronary artery (LCA), and the angioplasty was performed at University Hospital, Frankfurt, on November 24, 1977. Gruentzig agreed about the typographical error and, importantly, presented data that confirmed that the isolated main LCA lesion was not due to vasospasm (3). The early result of the angioplasty was excellent. In a subsequent report of his first 50 patients (4), Gruentzig described 2 patients who had PCI for main LCA disease; this was prior to the stent era.

The “late” outcome of that first patient is of interest. Several years later at a national meeting, Gruentzig told me the patient had died suddenly about 1 year after the procedure. The patient was in another country. Gruentzig told me if he was able to learn of the cause of death, he would share the information with me; he died shortly thereafter. In the 1970s, trauma to the main LCA from cannula placed in the main LCA for continuous coronary perfusion during open-heart surgery was known to cause myocardial infarction (5), angina, and “late” sudden death if the late occlusion was not recognized in time and the coronary arteries were not bypassed. That surgical practice has been long discontinued or, if used, great care and attention is paid to cannulating the main LCA.

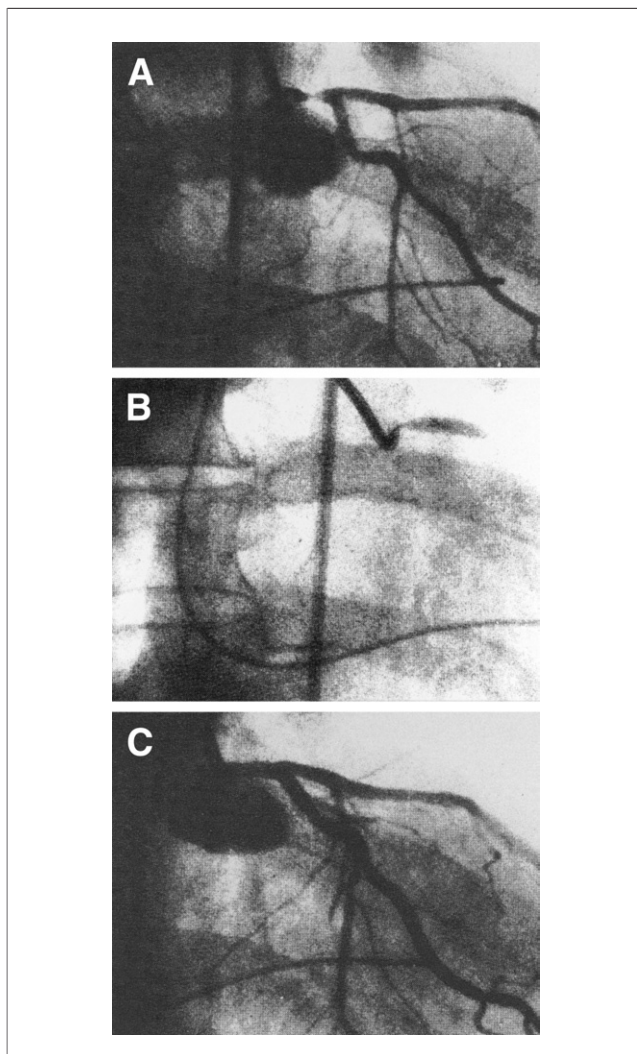
\*Shahbudin H. Rahimtoola, MB, FRCP, MACP, MACC, DSc (Hon)

\*Griffith Center, Division of Cardiovascular Medicine  
Department of Medicine, LAC+USC Medical Center  
University of Southern California  
2025 Zonal Avenue, GNH 7131  
Los Angeles, California 90033-1034

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2. Murphy E, Rahimtoola SH. Transluminal dilatation coronary artery stenosis (letter). *Lancet* 1978;1:1093.
3. Gruentzig A. Reply. *Lancet* 1978;1:1093.
4. Gruentzig AR, Senning A, Siegethaler WE. Non-operative dilatation of coronary artery stenosis. Percutaneous transluminal coronary angioplasty. *N Engl J Med* 1979;301:61–8.



**Figure 1.** PCI on Awake Human

(A) Eighty percent stenosis of main left coronary artery; (B) passage of the dilatation catheter; (C) post-procedure angiogram. Reprinted with permission from Elsevier (*The Lancet*, 1978, 1, 1093).

5. Murphy ES, Rösch J, Rahimtoola SH. Frequency and significance of coronary arterial dominance in isolated aortic stenosis. *Am J Cardiol* 1977;505–9.

## EDITOR'S NOTE

Gruentzig presented this case at the 1977 AHA Scientific Session. The ovation was so prolonged he could barely finish the talk. Now 30 years later we are still wondering if left main disease can be safely treated with PCI. The SYNTAX trial results will help.

Spencer B. King III, MD, MACC  
Editor-in-Chief,  
*JACC: Cardiovascular Interventions*