
CORRESPONDENCE

Are the Channels Too Small in Transmyocardial Laser Revascularization?

To the Editor:

It was with great interest that I read the recent article on Profulla Kumar Sen's contributions to cardiovascular surgery,¹ because I had the chance to meet P.K. Sen in Bombay in 1969 and to participate, with G.B. Parulkar, in his experimental work on transmyocardial acupuncture. This occurred while I was a resident in the department of surgery (head, Prof. H.G. Borst) at Hannover Medical School.

When I returned to my department, I did a series of experiments with canine models to investigate the effectiveness of this method. After creating punctures using the cannula diameter that Dr. Sen had recommended, we measured the myocardial blood flow with ⁸⁶Rb-chloride in the infarcted area and found no increase in flow. We then created channels by using a larger (4-mm) cannula.

To avoid bleeding or the necessity of suturing an opening in the epicardium, we used the following technique. The 4-mm cannula entered the left ventricular cavity from the posterior wall and penetrated the ischemic myocardium through the endocardium, without perforating the epicardium. Myocardial cylinders were removed by gently pulling back the cannula, the lumen of which was under negative pressure. This variation of the technique resulted in a significant increase in blood flow to the infarcted area (from 4.43% to 14.93%, $p < 0.05$), in experiments with both acute and chronic myocardial ischemia.²⁻⁵

These results demonstrated that a certain inner diameter (4 mm) of the cannula was needed to significantly increase the nutritional blood flow to the ischemic myocardium. In the new technique of "transmyocardial laser revascularization," the channels cre-

ated by the conventional laser beam are comparable in size to those produced by the small Sen puncture-needles (1.2–1.4 mm), which were shown by our experiments to be ineffective. If channels of 4 mm could be created by a laser or by some other means, a significant increase in flow could probably be produced.

During my visit to Bombay, Dr. Sen was kind enough to give me one of his oil paintings, which is still in my possession. I am very grateful for the time that I spent with him.

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Evidence of Type A Personality in a Chinese Lady Who Died of Acute Myocardial Infarction 2,100 Years Ago

To the Editor:

I read with great interest the guest editorial by Fred and Hariharan¹ on Types A, B, and D personalities in connection with the development and progression of coronary artery disease. As those authors point out, more than 40 years have passed since Friedman and

Rosenman² reported a 7-fold greater incidence of coronary artery disease in persons with a Type A personality than in those with a Type B personality.

Actually, such evidence existed 2,100 years ago. In 1972, archeologists in Changsha, the capital of Hunan province in China, exhumed the corpse of a noble lady, who was about 50 years of age when she died suddenly of an acute myocardial infarction in around 100 BC.³ My study of the data on the corpse showed that a severely occluded left coronary artery apparent-