
CORRESPONDENCE

Heart Transplantation for Acute Occlusion of the Left Main Coronary Artery

To the Editor:

The article by Lijoi and associates¹ describes 2 cases of myocardial salvage and reversal of cardiogenic shock after surgical revascularization of acute complete occlusion of the left main coronary artery (LMCA).¹ Although successful emergency coronary artery bypass grafting after acute occlusion of the LMCA has been previously described,² we believe that the 2 new cases reported by Lijoi are of great value, because they show that the results of surgery depend greatly on the length of time from the onset of acute symptoms to surgical intervention. Emergency surgery is not always possible, and often patients are referred for surgery too late, after unsuccessful thrombolytic attempts. When thrombolytic management has failed and several hours have passed since the onset of acute symptoms, surgical revascularization may be contraindicated due to high operative risk and the irreversibility of myocardial damage.

We recently reported the case of a 57-year-old man who developed exertional angina, which progressed 5 days later to continuous pain at rest.³ The patient was referred to our hospital, and on admission he was in cardiogenic shock with signs of acute pulmonary edema. He was intubated and mechanical ventilation was started. The electrocardiogram revealed an acute extensive anterior myocardial infarction. The maximum creatine kinase level was 1,101 IU/L. Thrombolytic therapy and inotropic support were established, and an intraaortic balloon pump was inserted. Two days later, the patient was extubated; but signs of severe cardiac failure persisted. The patient underwent cardiac catheterization, which revealed complete occlusion of the

LMCA. The right coronary artery was dominant, and multiple vessels collateral to the anterior descending and circumflex arteries were noted. A marked increase in the left ventricular end-diastolic pressure was observed, as well as high pulmonary wedge pressure and severe ventricular dysfunction (with an ejection fraction of 15%). In spite of inotropic, vasodilator, and diuretic treatment, symptoms of severe cardiac failure persisted. Consequently, an emergency heart transplantation was performed 30 days after admission. The postoperative course was uneventful, and the patient remains well 5 years after transplantation.

Due to the poor prognosis of acute occlusion of the LMCA, we believe that in cases where thrombolytic management fails and a contraindication for surgery is present, emergency heart transplantation represents a valid alternative.

*Angel L. Fernández-González, MD, PhD,
Jesús M. Herreros, MD, PhD,
Eduardo Alegria, MD, PhD,
The Departments of Cardiovascular Surgery
and Cardiology,
University Clinic of Navarra,
Pamplona, Spain*

References

1. Lijoi A, Della Rovere F, Passerone GC, et al. Emergency surgical treatment for total left main coronary artery occlusion: a report of 2 cases. *Tex Heart Inst J* 1993;20:55-9.
2. O'Shaughnessy MA, Ransbottom JC, Stiles BS, Stanford JR, Mirro MJ. Acute left main coronary artery occlusion. Survival following emergent coronary bypass. *Arch Intern Med* 1987; 147:2207-8.
3. Abecia AC, Alegria E, Fidalgo ML, Cabañero J, Herreros J, Martínez Caro D. Acute non-lethal complete occlusion of the left main coronary artery [in Spanish]. *Rev Esp Cardiol* 1993; 46:119-21.