Infected left ventricular thrombus revealing an unrecognized coronary dissection after blunt chest trauma, treated with emergency heart transplantation

J. Yssap¹, G. Lebreton², B. Hoen³, and L. Larifla¹*

¹Service de cardiologie, Université des Antilles et de la Guyane, Centre Hospitalier Universitaire de Pointe-à-Pitre, Route de Chauvel, BP 465, Pointe-à-Pitre, Guadeloupe 97159, France; ²Service de chirurgie cardiaque et thoracique, Université Pierre et Marie Curie, Assistance publique des hôpitaux de Paris, Hôpital La Pitié Salpétrière, Paris, France; and ³Service de Maladies Infectieuses et Tropicales, Université des Antilles et de la Guyane, Centre Hospitalier Universitaire, Pointe-à-Pitre, Guadeloupe, France

* Corresponding author. Tel: +44 7939024176, Email: llarifla@orange.fr

A 41-year-old male was admitted to hospital after 15 days of unexplained fever. Four blood cultures were positive for Staphylococcus aureus. Echocardiography (Panels A and B) and magnetic resonance imaging (Panel C) showed a large thrombus in the left ventricle and a low ejection fraction and electrocardiogram (ECG) showed Q waves in anteroseptal leads. Coronary angiography documented an occlusion of the circumflex and transmural necrosis in the territories of the circumflex and the left anterior descending coronary artery were demonstrated by thallium myocardial scintigraphy. Labelled-leukocyte scintigraphy found a significant intra-cardiac fixation (Panel D).

The patient had no cardiovascular risk factors, and the main event in his history was a high-speed traffic accident in 1998, which resulted in rib fractures and bilateral pulmonary contusion. ECG at that time showed Q waves with negative T waves in the anteroseptal territory, ST-segment elevation lateral with a mirror in the inferior territory. No other cardiac investigations had been performed at that time.

Our working diagnosis was a non-valvular infective endocarditis resulting from the infection of an old thrombus of the left ventricle. We hypothesized that a post-traumatic coronary artery dissection with subsequent unrecognized myocardial infarction and left ventricular thrombus was the most likely ‘cascade of events’ leading to this complication 15 years later. The evolution of the patient’s condition was marked by posterior myocardial infarction and acute heart failure. Coronarography showed a recent occlusion of the posterior descending artery, suggesting coronary embolization. The patient underwent successful emergency heart transplantation followed by complete resolution of both heart failure and infection. The anatomopathological examination and the bacteriological samples confirmed our diagnosis.

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