Sudden death caused by atypical variant angina

Franck Laporte*, Frederic Moulin, Beatrice Brembilla-Perrot

Department of Cardiology, Nancy University Hospital, rue du Morvan, 54511 Vandœuvre-lès-Nancy, France

Received 6 January 2011; accepted 13 January 2011
Available online 23 August 2011

KEYWORDS
Prinzmetal’s angina; Cardiac telemetry; Class Ic anti-arrhythmic; Polymorphic ventricular tachycardia

We describe the case of a 66-year-old man admitted to our intensive care unit after successful resuscitation associated with ventricular fibrillation. The patient’s medical history was marked by paroxysmal atrial fibrillation treated by flecainide and atenolol. He had no cardiovascular risk factors. Before losing consciousness the patient had described vasovagal symptoms including nausea, weakness and sweating. The results of physical examination, an electrocardiogram and routine laboratory tests were normal. Flecainide was then stopped because a proarrhythmic effect was suspected and a further investigation was conducted. Coronary angiography did not reveal the presence of coronary artery disease. Programmed ventricular stimulation was negative in the control state and after isoproterenol. Twenty-four-hour electrocardiogram Holter monitoring showed only short episodes of paroxysmal atrial fibrillation. Magnetic resonance imaging did not detect heart disease or an area of fibrosis. The following day, the patient presented discrete chest discomfort with sweating and weakness. The telemetry rhythm strip revealed ST-segment elevation followed by ventricular tachycardia and wide-complex polymorphic ventricular tachycardia at 300 beats per minute. This episode resolved spontaneously and lasted less than 3 min (Fig. 1). The diagnosis of Prinzmetal’s angina was confirmed by intracoronary injection of methylergometrine. Two minutes after injection, we observed vasospasm occlusion of the second segment of the right coronary artery associated with ST-segment elevation in the inferior leads of the electrocardiogram (Fig. 2A and B). This spasm promptly reversed with intracoronary injection ofisosorbide dinitrate (Fig. 2C). The patient then received the usual treatment for variant angina and, after 1 week, the intravenous methylergometrine test was negative.

* Corresponding author. Fax: ++33 3 83 15 38 56.
E-mail address: franck.laporte@yahoo.fr (F. Laporte).

1875-2136/$ — see front matter © 2011 Elsevier Masson SAS. All rights reserved.
doi:10.1016/j.acvd.2011.01.012
Figure 1. Telemetry rhythm strips revealing ST-segment elevation followed by ventricular tachycardia and ventricular fibrillation: strip A, ST elevation; strip B, ventricular tachycardia; strip C, wide-complex polymorphic ventricular tachycardia at 300 beats per minute; strip D, spontaneous resolution.

Figure 2. A. Electrocardiogram with ST-segment elevation in inferior lead DII. B. Total occlusion of the second segment of the right coronary artery after injection of methylergometrine. C. Normal coronary artery after local injection of isosorbide dinitrate.