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Complete Angiographic Resolution of Cocaine Induced Coronary Artery Dissection within Eight Days without Coronary Stenting - A Case Report

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Introduction Coronary dissection is a rarely reported complication of cocaine use for which there are no specific guidelines on management despite the widespread use of the drug.

Methods We report a case of a 26-year-old otherwise fit and healthy Caucasian male smoker who presented to our facility with an infero-lateral ST elevation myocardial infarction (STEMI) following nasal inhalation of 1 gram of cocaine. Coronary angiography showed a mid left anterior descending (LAD) artery dissection with distal occlusive embolism and another dissection of the distal right coronary artery (RCA) with embolism and occlusion of the distal posterolateral branch.

Outcome Wiring of both vessels with a High-Torque Floppy wire successfully re-established TIMI 3 flow with relief of pain and resolution of his ST-segment elevation. Given the absence of any flow-limiting lesions, stenting was avoided. He was subsequently put on a combination of therapeutic dose enoxaparin, aspirin, ticagrelor, atorvastatin and metoprolol. A repeat angiogram eight days later showed complete healing of the dissections.

Conclusion This case shows that percutaneous management without stenting coupled with aggressive anti-coagulation of cocaine induced coronary dissection may result in an acceptable outcome especially in a young otherwise fit and healthy patient.

Keywords Cocaine • Myocardial infarction • Dissection • Angioplasty

Introduction

A fit and healthy 26-year-old Caucasian male presented to the Emergency Department with a 30-minute history of severe retrosternal chest pain nine hours after inhaling 1 gram of cocaine. Other than being a light cigarette smoker he had no prior medical history. On arrival he had a blood pressure of 159/83 mmHg, a heart rate of 83 beats per minute and an oxygen saturation of 96% on room air. There were no signs of overt cardiac failure. 12-lead electrocardiogram (ECG) showed an infero-lateral ST-elevation myocardial infarction (STEMI) and a bedside transthoracic echocardiogram revealed discrete infero-apical akinesis but otherwise normal left ventricular size and systolic function, a normal sized aortic root, no significant valvular lesions, and no effusions. The diagnosis of an infero-lateral ST elevation

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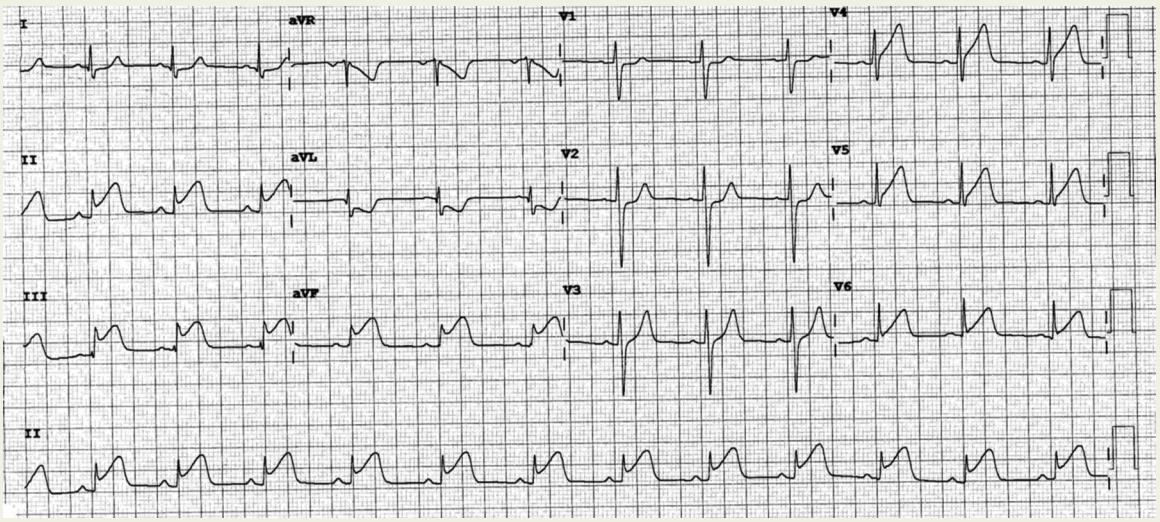

Figure 1 Initial ECG.

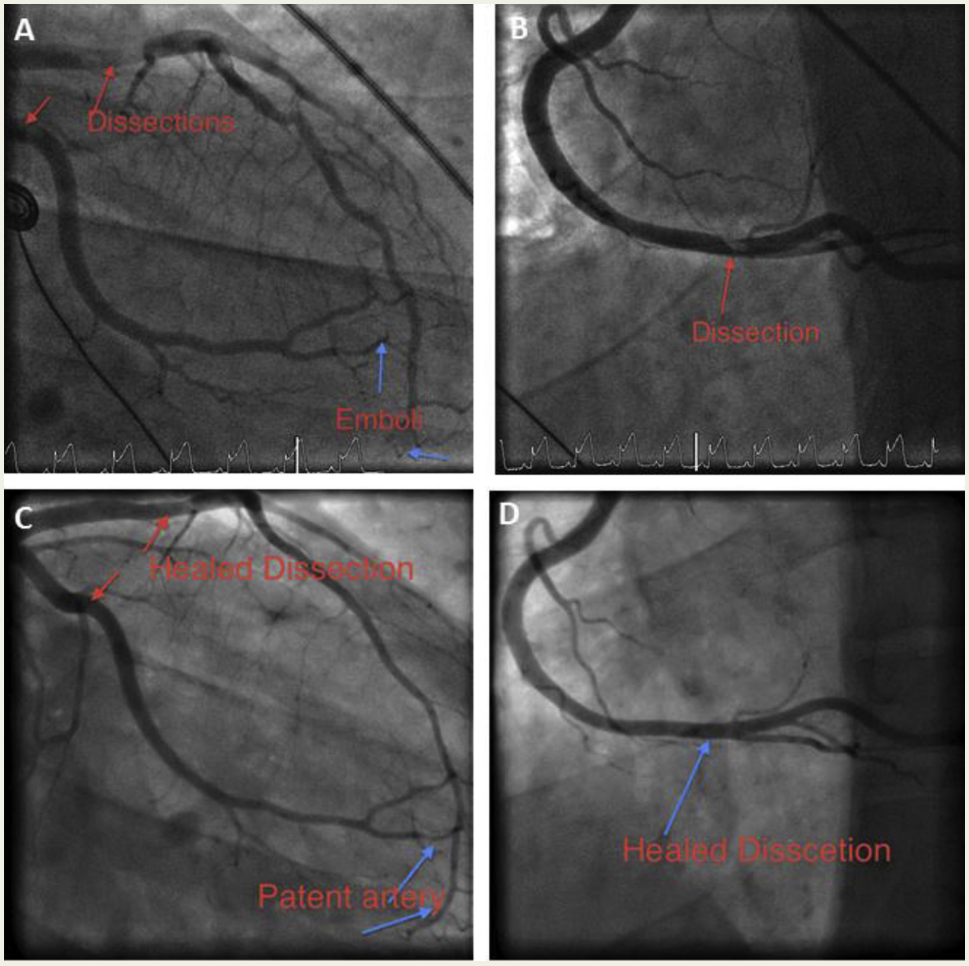

Figure 2 Pre- and post-angioplasty images. A. LAD and RCA dissections and distal emboli with ST elevation. B. RCA dissection with ST elevation. C. Post angioplasty showing healed dissections and patent distal arteries. D. Post angioplasty showed healed RCA dissection.