Is myocardial infarction common in the South Sudan?

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Introduction

It is generally believed that ischaemic heart disease and the serious consequence of myocardial infarction is uncommon in indigenous South Sudanese. This belief may be misplaced as evidenced by this case report.

Case History

PMD was a 48 year old lawyer who presented to the Juba Medical Complex (JMC) with sudden onset of "gripping" retrosternal chest pain that did not radiate and lasted thirty minutes. It was associated with breathlessness and sweating. He denied a family history of ischaemic heart disease. He smoked 30 to 60 cigarettes daily over a number of years and consumed, according to his wife, approximately 100 units of alcohol each week. He was diagnosed with type 2 diabetes in 2007. He thought this

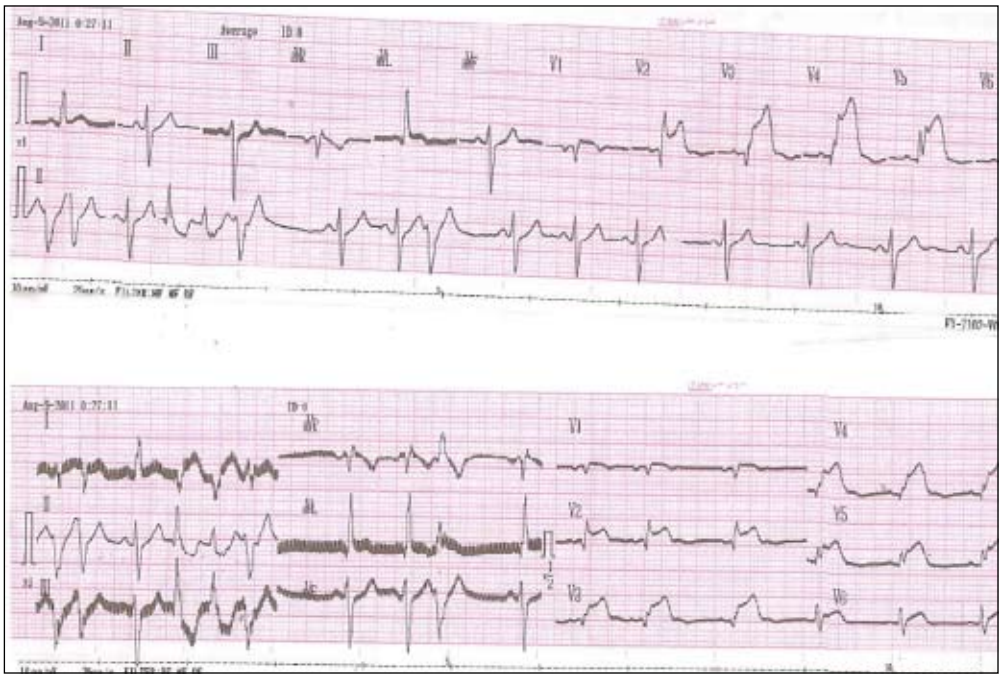

Figure 1. 12 lead ECG at presentation. The two ECG tracings were taken at presentation and show an hyper acute ST elevation in the lateral chest leads and ventricular ectopics (some of which are couplets) suggesting possible degree of reperfusion perhaps.

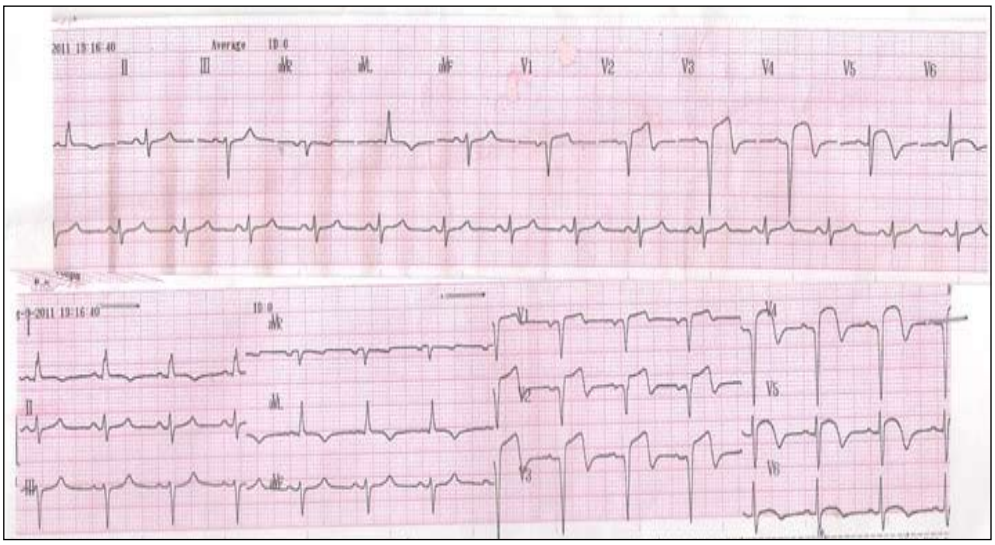

Figure 2. 12 lead ECG carried out 24 hours later showing deep Q waves and T wave inversion and ST waves that are less elevated in the lateral chest leads at presentation.

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had been well controlled with diet and glibenclamide 5mgs daily. However two weeks before this admission his glycaemic control was deemed to be poor and so he was started on Mixtard Insulin 25 units in the morning and 15 units in the evening.

On examination the patient was pain free although looked unwell - pulse100/minute and regular; blood pressure 110/60. He was not in heart failure and the rest of the examination was unremarkable. There were no nicotine stains in the fingers despite the history of heavy smoking. Random blood sugar on presentation was 12mmol/litre.

The initial 12 lead electrocardiogram (Figure 1) showed hyperacute ST segment elevation in leads V1 to V6 denoting acute anterior myocardial infarction. An ECG (Figure 2) 24 hours later showed persisting anterior ST elevation with T wave inversion.

Treatment with thrombolysis is not available at JMC. Standard treatment for acute coronary syndrome was instituted with aspirin (75 mg od), an ACE (Ramipril 2.5 mg od), low molecular weight heparin, a statin (Atorvastatin 40mg nocte) and a b-blocker (Bisoprolol 5mg od). Forty eight hours later he was transferred to a cardiac unit in a neighbouring country for echocardiography, possible exercise stress test and percutaneous coronary intervention.

Comment

PMD has risk factors for ischaemic heart disease:

- cigarette smoking,
- excessive alcohol consumption and
- type 2 diabetes mellitus.

These factors are prevalent in many patients attending the JMC and in the South Sudan at large. Hence all patients in South Sudan presenting with chest pain should be assessed for possible angina or myocardial infarction, especially if they have predisposing risk factors (1). Increasing use of tobacco, obesity, hypertension and diabetes are all likely to lead to a rising occurrence of myocardial infarction. Further reports of myocardial infarction from colleagues would be welcome as this would raise awareness of the problem.

Reference:

1. Camm AJ, Bunce N. Ischaemic Heart Disease in Text book of Clinical Medicine, Eds Kumar P & Clark M. pp743-760, 2010 edition.