Introduction

Non-infectious acute pericarditis frequently complicates acute rheumatic fever, myocardial infarction, chronic renal failure and connective tissue disease.

Acute non-infectious pericarditis may occur following trauma to the pericardium. There is typically a delay of onset of pericarditis following trauma, supporting the aetio-pathogenesis concept of immunological hypersensitivity.

Case History

A 47 year old man was admitted to the General Hospital Matara with the history of stab injury to the right anterior chest. On admission the clinical picture was that of right haemothorax. Intercostal tube was inserted and blood drained out. Patient recovered and was discharged after 9 days. Two days later the patient was readmitted with breathlessness and chest pain. Clinical examination revealed tachycardia and hypotension and he died after 20 hours. Autopsy revealed the following findings.

Both lungs were heavy and congested. Rest of the organs was unremarkable.

Toxicological analysis performed at the Department of Government Analyst was negative. Histopathology examination of the heart revealed greatly thickened pericardium with mononuclear inflammatory cell infiltrate mainly comprising of lympho-plasmacytic cells with few macrophages. Pericardium also contained abundant fibrinous material with early granulation tissue formation. No evidence of suppuration, granuloma, or neoplasia is seen. The underlying myocardium appeared normal. The microscopic examination of the rest of the internal organs were unremarkable.

Discussion

Acute pericarditis caused by immunologic hypersensitivity is characterised by timed-lag of several days to few weeks between trauma and clinical onset and histological evidence of acute pericarditis with lympho-plasmacytic cell infiltration devoid of neutrophils. During the course of lag period immunologic reaction develops against new antigens exposed on the pericardium following trauma. In this case patient recovered almost completely from the injuries to the pleural cavity and the lung. Trauma to the pericardium was probably caused by the movements of ill-placed intercostals tube but not by stab injury itself.

This view was supported by retrospective review of chest radiograph. Here we find an important medico-legal issue that death was not directly caused by stab injury but occurred as a consequence of stabbing.

References