An acute myocardial infarction due to *Brucella* prosthetic valve endocarditis starting shortly after the onset of non-specific symptoms

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Accepted 14 January 2015

DESCRIPTION

Brucellosis most commonly causes fever, drenching night sweats and musculoskeletal symptoms, but in 1–2% of cases, it becomes complicated with endocarditis, which accounts for most of the mortality.^{1 2} *Brucella* prosthetic valve endocarditis (PVE) is a

rare entity, and available data are limited to case reports or small case series.

We present a case report in which a 36-year-old man was admitted to the hospital with new-onset generalised muscle and back pain. Rheumatology clinic hospitalised the patient for further evaluation. The patient had undergone a mechanical heart valve replacement for aortic position 4 years ago. A cardiac evaluation 1 week earlier was unremarkable with an international normalised ratio of 3.1 and a normal functioning bileaflet aortic valve prosthesis on transthoracic echocardiography (TTE). The patient reported severe chest pain after 8 h following hospitalisation. An ECG showed ST-segment elevations in inferior leads, which was consisted with an acute inferior myocardial infarction. An emergency coronary angiography was then performed, which showed a complete occlusion in the distal circumflex (Cx) coronary artery (figure 1). Percutaneous transluminal coronary angioplasty with stenting restored Thrombolysis in Myocardial Infarction-3 coronary flow in the Cx artery. In the meantime, a normally functioning bileaflet aortic valve prosthesis was noted on fluoroscopy (figure 2A, B). TTE and transoesophageal echocardiography revealed a vegetation on the aortic valve prosthesis (figure 3A, B). Empirical antibiotherapy was begun for PVE after obtaining blood cultures, which eventually yielded *Brucella melitensis*, thus further confirming *Brucella* PVE.

Figure 1 Arrow shows complete occlusion circumflex coronary artery.

Figure 2 A and B fluoroscopy of normally functioning bileaflet aortic valve prosthesis.

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To cite: Aktürk S, Kaya H, Aktürk E. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-209001

Figure 3 (A) Transthoracic echocardiography (B) transesophageal echocardiogram, arrows showing vegetation on aortic valve prosthesis.

Learning points

- ▶ *Brucella* endocarditis is a rare clinical entity with a high mortality rate.
- ▶ *Brucella* endocarditis should be taken into account in the differential diagnosis in endemic regions for *Brucella* and in those patients who are at high risk for *Brucella* endocarditis.
- ▶ Our case report was notable for its different clinical presentation, acute myocardial infarction, starting shortly after the onset of non-specific symptoms.

Contributors SA was involved in the article writing, data collection, language assessment, analysis of radiological images, making assessments. HK was involved in the data collection, analysis of radiological images, making assessments. EA was involved in the article writing, language assessment, analysis of radiological images.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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