Reviewer's report

Title: Unusual cardiovascular complications of brucellosis: a case series

Version: 1  Date: 29 August 2010

Reviewer: Christopher Coulter

Which of the following following best describes what type of case report this is?: Unexpected or unusual presentations of a disease

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

General comments: The authors title their paper as a case series. However two cases do not make a 'series'. These cases are not unique as other authors in recent years have also made the same point: that cardiac involvement with brucellosis is rare and even more so in the absence of concomitant endocarditis. However as the number of cases in the literature is numerically very low, the present two cases are worthy of publication but revisions to the paper are required.

There are quite a few grammatical errors throughout the paper which should be addressed. Some words do not translate well into English for an academic paper. For example the word "cookers" [Discussion, paragraph 2] would better be termed "food handlers" or similar. I mention specific instances only when they change meaning.
Introduction: Sentence two - the use of the word ‘as’ implies that the generalised and systemic symptoms of brucellosis are due to the fact that almost every organ can be affected, whereas using the word "and" would be more accurate.

Case 1. This case is presented as a case of pericarditis complicating brucellosis. In fact none of the cardinal features of acute pericarditis were present i.e. there was no chest pain, no ECG changes and pericardial friction rub. There are no features of chronic pericarditis. This case is of a pericardial effusion presenting with acute brucellosis. It is unclear whether this is a direct infection of the pericardium or an immunological phenomenon, as no invasive diagnostic procedure was performed (acknowledged by the authors). While pericarditis may well be the cause of the pericardial effusion, this patient did not have any clinical or ECG evidence of pericarditis. I suggest the authors change their paper to reflect that they are describing a case of asymptomatic pericardial effusion. The word “New” in second last sentence of case 1 report is not necessary.

Points on microbiological diagnosis (cases 1 and 2). If the authors are wishing to attribute these rare manifestations to a particular species of Brucella, it is important that some reference is made to how the laboratory confirmed the diagnosis. While the local epidemiology would make the pre-test probability of the species being B. melitensis likely, accurate speciation is problematic in a routine microbiological laboratory. Were the isolates identified in a reference laboratory and what methods were used? The serological agglutination test is not species specific for B. melitensis. The authors refer to high titre ELISA tests. These assays are usually not reported as a quantitative titre, unless specific control standards have been used. There may have been a high signal to cut off ratio detected by the laboratory but this is not usually reported as it can be problematic comparing values from different runs.

Case 2. In the second sentence the use of the word “referred” would be better replaced by “described” or “complained of”. In the third sentence replace the word “as” (a common cold) with “for a”. In addition consideration could be given to using “upper respiratory tract infection” instead of “common cold”. No ‘e’ required for troponin. Suggest add “wall” after the word “ventricular” [para 3 sentence 4 of case 2]. Suggest delete “so far” at the end of the final paragraph describing case 2.

Discussion/ Conclusion. Other publications are referenced to back up the assertion that cardiac complications, without endocarditis are rare. It would be useful if any clinical information on presentation from other cases could be summarised though there may not be sufficient detail in the papers to make this possible. The authors make the case that pericardial and myocardial manifestations of brucellosis may be under-diagnosed due to the lack of routine use of echocardiography. While this is possible, both cases presented showed evidence of their cardiac involvement on routine tests i.e. chest radiograph (case 1) and ECG (case 2). It would be reasonable to emphasize the use of these tests in assessing febrile patients, especially where brucellosis is clinically and/or epidemiologically suspected. Echocardiography can be used where such abnormalities are detected. If the authors go on to complete and publish their
planned study where routine echocardiography of all cases provides useful information which changes clinical management, then broader recommendations may be appropriate.

Quality of written English: Needs some language corrections before being published

Declaration of competing interests:
I declare that I have no competing interests.