Author's response to reviews

Title: A traveller presenting with severe melioidosis complicated by a pericardial effusion: a case report

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Author's response to reviews: see over
A traveller presenting with severe melioidosis complicated by a hemodynamically relevant pericardial effusion: a case report

Authors: Detlev Schultze, Brigitt Müller, Thomas Bruderer, Günter Dollenmaier, Julia M. Riehm, Katia Boggian

Dear Professor Laterre

Thank you for the opportunity to revise the manuscript.

I have replied to each of the points raised by yourself and by the two referees.

Sincerely yours

Detlev Schultze

Answers to the editorial comments:

1. All the reviewer's comments are addressed.  
   **Answer:** please cf. my responses to the referees

2. The reference mentioned by a reviewer is included.  
   **Answer:** Yes, please cf. my responses to the referees
3. Comment is made on the differential diagnosis that could also include autoimmune diseases (such as polyarteritis nodosa - was this investigated?) and stress on TB

Answer:
Search for autoimmune diseases and vasculitis was performed by testing for antinuclear antibodies by indirect immunofluorescence assay on HEp-2 cells, by indirect immunofluorescence assay for ANCA, and by PR3- and MPO-IgG EIA. Rheumatoid factor was positive (63 IU/ml; Ref < 6 IU/ml) while CCP-IgG was negative. Elevation of rheumatoid factor was interpreted in the context of infection by B. pseudomallei. The patient showed neither neurological, cutaneous nor urologic or renal manifestations suspicious of PAN.
Amended version of manuscript: lines 66-67

4. More details are given on haemodynamic aspects of investigations (physical signs such as Kussmaul's and other features of examination of the JVP) hepatomegaly, peripheral oedema and so on. The gradients and outputs on ECHO should be included together with changes on ECG pre and post drainage.

Answer:
The patient showed jugular venous distention, but despite the large volume of pericardial fluid (700 ml), neither Kussmaul's sign nor hepatomegaly or peripheral oedema were observed. Electrocardiogram showed sinus tachycardia and low QRS voltage and echocardiogram showed a leftventricular ejection fraction of 55%.
After pericardiocentesis and aspiration of 700 ml of a clear yellowish fluid the right ventricular function normalized, the leftventricular ejection fraction raised from 55% to 65% and the QRS voltage normalized.
Amended version of manuscript: lines 75-80

**Answers to the Reviewer’s comments: Dunja Wilmes**

DISCRETIONARY REVISIONS

Case Presentation
1/ Did the patient have had particular occupational contact with soil?
Answer:
The patient had no occupational contact with soil.

2/ Do you have chemistry of the pericardial effusion?
Answer:
We measured the total protein content and the lactate dehydrogenase (LDH) activity in the pericardial fluid: total protein 48 g/l, LDH 765 U/l with a pericardial fluid/serum-quotient of 0.6 for total protein and of 2.3 for LDH, respectively.
Amended version of manuscript: lines 91-2

Discussion
1/ I would suggest to underline, that tuberculosis is the most probable infectious cause in culture negative tamponade and that differential diagnosis with melioidosis can be challenging.
Answer
I have written, that tuberculosis is regarded as the leading cause of pericardial effusion in developing countries (please cf lines 138-9).
To underscore this point, I have added the sentence: In areas where tuberculosis and melioidosis are endemic, complicating pericarditis may only be differentiated by pericardial fluid culture and findings of pericardial biopsy [12]

Amended version of manuscript: lines 148-50

MINOR ESSENTIAL REVISIONS

Abstract: Background
1/ Traveler or traveller: it would be better to use the same orthography in the entire article.
Answer:
The term ‘traveler’ has been replaced by ‘traveller’ in the entire article.

Discussion
1/ There is a problem with the white blood cell count of the pleural effusion (73% + 54% + 13% # 100%).
Answer:
Correction: ‘(73% + 54% + 13% # 100%)’ to ‘(33% + 54% + 13% = 100%)’
Amended version of manuscript: line 81

2/ Do you have total white blood cell count and chemistry of the pleural effusion?
Answer
Pleural effusion contained 1.07 G/l leucocytes, 13% polymorphonuclear neutrophils, 33% monocytes/macrophages, and 54% lymphocytes; LDH 144 U/l with a normal range of LDH in serum <265 U/l, and with a pleural fluid/serum-quotient of 0.4 for LDH and 0.4 for total protein, respectively.
Amended version of manuscript: lines 82-4

Answers to the Reviewer’s comments: Philippe Eggimann

1. Title: the title may be simplified “hemodinamically relevant”may be deleted from the title
Answer:
I agree that the title is more readable without ‘hemodinamically relevant’
Amended version of manuscript: lines 2-3

2. Abstract: Did the authors cf. to qualify the hemodynamic effect of the pericardial effusion as “significant” rather than “relevant”
Answer:
Amended version of manuscript: line 32, 36, 54, 177,

3. Case presentation: What was the time to get the diagnosis of melioidosis?
Answer:
The patient was admitted on day 20 after onset of illness, culture of pericardial effusion started on day 21 with a time-to-positivity of 35 hours. Taken together, diagnosis of melioidosis was made 22 days and 11 hours after onset of symptoms. 

Amended version of manuscript: line 170

4. Discussion: The authors specify that empirical treatment with amoxicillin/clavulanate was inadequate. However, this may be responsible for the absence of growth of Burkholderia pseudomallei from samples other than pericardial fluid. This may also explain why the patient did not develop a septic shock as recently reported to be very common in patients with primary pneumonia (Meumann EM et al. Clinical features and epidemiology of melioidosis pneumonia: results from a 21-year study and review of the literature. Clin Infect Dis. 2012 Feb 1;54(3):362-9.)

Answer: I included the following sentences in the section ‘Discussion’. 

However, this may have been responsible for the absence of growth of B. pseudomallei in other samples, especially in blood culture. This may also explain why the patient did not develop a septic shock as recently reported to be very common in patients with primary pneumonia combined with positive blood culture [15= Meumann EM, Cheng AC, Ward L, Currie BJ. Clinical features and epidemiology of melioidosis pneumonia: results from a 21-year study and review of the literature. Clin Infect Dis 2012, 54(3):362-9]

Amended version of manuscript: lines 164-8 and lines 239-241