Response letter to reviewers' comments

Manuscript id: **42604 (World Journal of Clinical Cases)**

"Spontaneous cerebral abscess due to Bacillus subtilis in an immunocompetent male patient: a case report"

Dear Editor,

We appreciate the time and effort you have spent to thoroughly review our manuscript. Thank you for giving us the opportunity to further revise our paper. According to your suggestions, we have reformatted the "CASE PRESENTATION" section, to comply with the new journal's instructions, and have also provided the experts conclusions in the "MULTIDISCIPLINARY EXPERT CONSULTATION" section. Following, you will also find our response to reviewers comments, as uploaded in the first round of revisions.

We hope that this revised manuscript will meet your requirements for publication in the WJCC.

Sincerely,

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"Spontaneous cerebral abscess due to Bacillus subtilis in an immunocompetent male patient: a case report"

Dear Editor and Reviewers,

We appreciate the time and effort you have spent to thoroughly review our manuscript. Thank you for your constructive comments and insightful suggestions on our manuscript. In the revised paper, we've addressed all comments raised by the reviewers.

Response to Reviewer #1 comments:

1. ***The authors should comment on whether they think transthoracic ultrasound is sufficient to rule out endocarditis.***

   According to the latest guidelines of the American Heart Association on the diagnosis and treatment of infectious endocarditis in adults, endorsed by the Infectious Diseases Society of America (**Circulation**. 2015 Oct 13;132(15):1435-86), our approach to the diagnostic use of echocardiography, when infective endocarditis is suspected, is based on patient's stratification into low, moderate or high risk, considering also the difficulty of imaging procedure. Transesophageal echocardiography should be performed in high risk patients, in moderate to high clinical suspicion and in difficult imaging candidates, including patients with prosthetic heart valves, many congenital heart diseases, previous endocarditis, new murmur, heart failure, or other stigmata of endocarditis. Our patient presented none of these features nor had positive blood cultures and was therefore considered a low risk patient. Furthermore, he had had an optimal echocardiographic window (absence of chronic obstructive lung disease, previous thoracic or cardiovascular surgery, morbid obesity). In this group of patients, a negative transthoracic echo is sufficient to rule out endocarditis, especially when an alternative source of infection is found (see Figure 1 in the above stated current guidelines). This has been commented now in page 7, first paragraph.

2. ***The authors should comment on the duration of the antibiotic regimen***

   The duration of antibiotic therapy has been clearly stated now in the "Treatment" section of "Case Presentation" (page 10). Specifically, four weeks of intravenous ceftriaxone 2g BID was completed, following the surgical removal of brain abscess, with sequential two weeks of oral amoxicillin/clavulanic acid 1g bid (This information for the step-down oral therapy was not included in our initial submission but has been added now). The rationale of this selection has been commented in a new paragraph in the "Discussion" (page 13).

3. ***A follow-up of this patient would be interesting to exclude re-occurrence of the abscess after a few weeks (see comment concerning antibiotic therapy).***

   At follow-up visit, two months after surgical removal of cerebral abscess, the patient was asymptomatic, and a new MRI scan showed complete removal of the abscess with only minor post-operative findings at the adjacent dura (Figure 2). This is clearly stated now in the new "Outcome and Follow up" section of the "Case Presentation", in page 10.

4. ***In my opinion, priority claims ("first report") should be generally avoided; but this depends on the journal's policy***

   We understand your comment, that's why we do not state that "this is the first report", but "To the best of our knowledge". If the Editor thinks that we should change this phrase, we are willing to do so.

5. ***Article highlights: The authors should provide a real "clinical diagnosis" based on their clinical findings and not just a description. The authors should at least briefly mention additional differential diagnosis based on the imaging findings.***

Our clinical diagnostic considerations were added in the second paragraph of "Case Presentation" (page 6). The radiological findings on Brain MRI were typical of a brain abscess. The "Article Highlights" sections, you refer to, has been replaced by the "Experiences and Lessons" section, following Editor's suggestion to change the format of our paper, according to the new journal's guidelines.

Response to Reviewer #2 comments:

1. ***However, it's better to present all the results of blood and cytokines as well, besides of the photos.***

   The values of the specific blood tests (complement, immunoglobulins, tumor markers), which were previously descriptively stated (e.g. normal) have now been provided in page 7, according to your suggestion.