Author’s response to reviews

Title: Cervical anaerobic vertebral osteomyelitis following surgical tracheotomy: a case report

Authors:

Romaric Larcher (r-larcher@chu-montpellier.fr)
Camille Maury (c-maury@chu-montpellier.fr)
Jonathan Charbit (j-charbit@chu-montpellier.fr)
Helene Jean Pierre (h-jean_pierre@chu-montpellier.fr)
Vincent Le Moing (v-le_moing@chu-montpellier.fr)
Klouche Kada (k-klouche@chu-montpellier.fr)
Xavier Capdevila (x-capdevila@chu-montpellier.fr)

Version: 1 Date: 10 Jul 2019

Author’s response to reviews:

July 7, 2019
To the Editor-in-Chief and to the Editor of BMC Infectious diseases Journal

Dear Drs Helen Roberton and Cecilia Devoto,

Thank you for forwarding our manuscript entitled “Cervical anaerobic vertebral osteomyelitis following surgical tracheostomy: a case report” to reviewers.

We appreciated their constructive contributions and remarks. We have followed their recommendations and hope that we have answered their questions thoroughly. We do feel that their contribution improved the quality and the meaning of our work to a significant extent. Attached are the answers to questions or comments in the order in which each was addressed. We have underline (in red) all changes made in the text.

We are pleased to submit a revised manuscript for publication as a case report in BMC Infectious diseases Journal, as requested.
Response to Reviewer 1 (Pr Konstantinos Bouliaris):

We thank the reviewer for his interest to this work and for his helpful observations.

Q1. Why it took so long to perform a tracheostomy? When was the patient extubated? During the stay in the ICU did the patient develop ventilator-associated-pneumonia or other infections which could be possible sources for septic metastasis osteomyelitis?

R1. Our policy about the timing of tracheostomy is routinely to delay its realization until the third or fourth week after cranial trauma particularly when the patient is young and could recover. Actually, the optimal time to perform tracheostomy in critically ill patients on prolonged mechanical ventilation remains debated. In 2015, the systematic Cochrane review failed to demonstrate a significant difference between early and late tracheostomy. A surgical tracheostomy was then performed in our patient on Day 33. The patient was weaned from the ventilator 7 days later. (section case presentation lines 60-61, page 3).

At Day 15, an Enterobacter aerogenes VAP has been diagnosed and treated with cefepim for 8 days. This has been reported in the main manuscript. Please see case presentation section, lines 53-55, page 3. Tracheostomy was performed several days after ending antibiotherapy and osteomyelitis was due to an anerobic bacteria. So it is unlikely that this infection would be the source of septic metastatic osteomyelitis.

Q2. Why did you performed an open tracheostomy rather than a percutaneous one which is associated with less trauma and fewer local infections?

R2. The reviewer correctly pointed that percutaneous tracheostomy would be associated with less trauma and fewer local infections than surgical one. Differences are however weak according to published studies. We choose to perform surgical tracheostomy only because of our experience with this technique at this time. Text section “case presentation”, line 58, page 3: A surgical tracheotomy was also performed on day 33, as we use to do in our trauma ICU.

Q3. The authors should also clarify if there were any signs of local infection during the postoperative days following the tracheostomy procedure.

R3. We did not observe any signs of local infection during the period following the tracheostomy procedure. We amended the text to so precise. Please see in the case presentation section, lines 59-61, page 3

Response to Reviewer 2 (Reviewer 2):
First of all, we appreciate and thank the reviewer for his/her enthusiastic comments.

REQUESTED REVISIONS:
Q1. I prefer the term "tracheotomy" for the procedure and "tracheostomy" for the opening itself or in referring to the tracheostomy tube. This is a small point and the two terms are often used interchangeably.

R1. We agree with the reviewer about the terminology of terms "tracheotomy" and "tracheostomy". We modified the manuscript as he suggests. Please see Title section, line 1, page 1; Abstract section, lines 26, 28, 34, 36 and 39, page 2; Background section, lines 42 and 47, page 2; Case presentation section, line 58, page 3; Discussion and conclusions section, lines 84, 86, 87 and 95, page 4 and lines 110 and 111, page 5.

Q2. I think the figure (CT and MRI) are acceptable, but would recommend some arrows on each to point out the key area / pathology.

R2. As suggested by the reviewer, we added some arrows to point out the interested area in the figure. Caption was also modified as follow: “Figure 1: A - Cervical computed tomography scanner: erosion of C6 vertebral body endplate (withe dotted arrow) associated with epidural and right paravertebral hydro-aeric collections (withe arrow). B - Cervical and medullar magnetic resonance imaging: STIR hypersignal of disc with irregularity and erosion of C6-C7 vertebral body endplates (withe dotted arrow), and epidural collections (withe arrow).” (Caption section, lines 160 - 164, page 7)

To the editor

We hope to have comply with the recommendations of the editor and the reviewers. We do feel that their contribution improved the quality and the meaning of our work to a significant extent. It is now our hope that this manuscript shall be considered for publication in the BMC infectious diseases journal.

Sincerely,

R Larcher