Reviewer’s report

Title: Descending Necrotizing Mediastinitis Caused by Streptococcus Constellatus in an Immunocompetent Patient: Case Report and Review of the Literature

Version: 3 Date: 28 Nov 2019

Reviewer: Michele Mondoni

Reviewer's report:

This is a potentially interesting Case Report describing a patient with a mediastinal abscess caused by Streptococcus constellatus, successfully treated with EBUS-TBNA drainage, associated to antibiotic therapy. Few data are reported on mediastinal infections caused by this microorganism and few cases of EBUS-TBNA drainage of mediastinal abscess are available in the literature.

The following comments should be adequately evaluated.

Major comments:
Case presentation:
-page 3, lines 5,6: Authors reported that during bronchoscopy an endobronchial lesion was found in the right main bronchus and a biopsy revealed the presence of inflammatory cells (i.e. granuloma). This is a relevant finding since a lesion like this could induce an atelectasis and a post-obstruction pneumonia. It is unclear the exact anatomical location of the lesion and if this induced a significant segmental/lobar bronchial obstruction. Did it induce a post-obstructive pneumonia? Was it the cause of the right pneumonia described in the text?

How was this benign lesion treated? Was it treated with an ablative endoscopic procedure (e.g. laser therapy, argon plasma coagulation, etc.)? This issue should be necessarily clarified and then discussed in the Discussion section.

-page 3, lines 8,9: Was Mycobacterium tuberculosis presence in the abscess fluid ruled out (i.e. with acid-fast bacilli, PCR and culture)? Notably, the patient had a history of tuberculosis in the past.

Minor comments:
Case presentation:
-page 2, lines 33,34: Did the patient have a chest (i.e. pulmonary and/or pleural and/or mediastinal lymph nodes) tuberculosis? This aspect deserves a clarification.

-page 2, lines 56: Which is the meaning of the sentence "The patient experimentally started"? Do Authors mean that an empiric antibiotic treatment was started?

-page 3, line 1: which needle size (i.e. gauge) was employed during EBUS-TBNA treatment of the abscess? Which was the duration of the procedure?

Discussion
-page 4, line 8-19: this paragraph, which focuses on the possible pathogenesis of the mediastinal abscess should be placed in the beginning of this section (before commenting on the other case
Furthermore, it should be underscored that Streptococcus constellatus could have pass into the mediastinum through a possible endobronchial leak, only following an inhalation of the germ from the upper airways. This is issue should be clarified.

Conclusions
Authors stated that EBUS-TBNA should be implemented to drain a mediastinal abscess. I agree that this is a useful minimally invasive way to avoid surgery in this context. Moreover, it should be pointed out that this particular treatment procedure should be carried out only in centres with large experience in endobronchial ultrasound guided needle aspiration techniques. Indeed, mediastinal infections/sepsis following EBUS-TBNA of mediastinal lymph nodes, cysts and abscesses are described in the literature.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Unable to assess

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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