Author’s response to reviews

Title: “A case of community-acquired bacteremic Streptomyces atratus pneumonia in an immunocompetent adult”

Authors:

Miguel Ariza-Prota (arizamiguel@hotmail.com)
Ana Pando-Sandoval (ana_pando@hotmail.com)
David Fole-Vázquez (davidfolevazquez@gmail.com)
Marta García-Clemente (mgclemen@gmail.com)
Teresa Budiño (terebudino@telecable.es)
Pere Casan (pcasan@ins.es)

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Author’s response to reviews:

Dear Marco Cei, M.D. (Journal of Medical Case Reports):
Here we try to answer all the questions and comments of the reviewer.
Thank you very much for everything.

We look forward to hearing from you at your earliest convenience.
With my best regards,
Miguel Angel Ariza Prota
Pulmonologist

Comments (Reviewer #1)

The authors have described interestingly a case of Community-acquired Streptomyces spp. bacteremic pneumonia in an immunocompetent patient. I have a few minor queries as described below:

1. It has been mentioned three blood cultures were obtained on admission, of which two revealed presence of Streptomyces. Was these 3 blood samples collected through a single venipuncture? Answer: Yes, all 3 blood samples were collected through a single venipuncture. Were the blood samples collected from different sites? Answer: No, all blood samples were collected from the same site. I would suggest the authors to mention these details in the manuscript for the benefit of the readers. Answer: We have added this useful information to our manuscript (In the case presentation section, line 44, we have
added: Three blood cultures were obtained on admission from the same site through a single venipuncture.

2. The isolate was found to be ciprofloxacin sensitive, but the patient did not respond to initial treatment with Levofloxacin. It would be interesting if the authors could discuss the possible reasons in the discussion. Answer: Due to the persistence of fever, the pulmonologist in charge of the patient decided to change levofloxacin to imipenem on the third day of hospitalization before the blood culture results came in, maybe it was too soon to make that change, but it was his patient and he made that call. We have spoken to the Microbiology department and they only did the resistance test for ciprofloxacin. We assume that the isolate was also sensitive to levofloxacin in this case. We have added in the case presentation line 51, that levofloxacin was changed to imipenem on the third day of hospitalization (it was not included when the change was made). In the conclusion section line 56, we have added that our patient was treated for the first three days with levofloxacin, but due to persistent fever, it was modified to imipenem.

3. The discussion could include some reports about Streptomyces bacteremia secondary to infection at other sites, besides pulmonary involvement. It would be good to describe the different clinical settings in which Streptomyces bacteremia has been reported. Answer: We have added a new paragraph with new bibliography to the discussion regarding this matter, line 24: Other reported cases of invasive Streptomyces infections include endocarditis of the prosthetic valve, catheter-related bacteremia in a patient receiving holistnic infusions, bacteremia with thrombosis, pneumonia, pericarditis, peritonitis, arthritis, cervical lymphadenitis, brain abscess, and intraspinal mycetoma6,7. In all the reported cases of bacteremia due to Streptomyces, the source was a catheter, prosthetic valve, intravenous infusion or a primary lesion in internal organs such as the lung.

4. The manuscript has to be reviewed for spelling mistakes. For instance the spelling of “cytology”, “mycobacterial” culture, “resistance” needs to corrected. Answer: It has been corrected.

5. It has been mentioned: “In all the reported cases were Streptomyces spp. grew in BAL culture, an immunosuppressive condition was always associated (our patient was immunocompetent).” In this sentence “were” should be replaced by “where”. Answer: It has been corrected.

Comments (Reviewer #2):

The Authors had described well enough a case of Streptomyces atratus pneumonia in an old, apparently immunocompetent, man. I think that this case is worth reporting, with few recommendations to improve the quality of the paper. Here are my comments:

1. The Authors should specify if this infection was community-acquired or not, following current definitions. Answer: We have added in the introduction section, line 12: To our knowledge, this is the first documented case of community-acquired Streptomyces atratus
bacteremic pneumonia in an immunocompetent patient. Also in the conclusion section line 11: To our knowledge, this is the first documented case of community-acquired Streptomyces atratus bacteremic pneumonia in an immunocompetent patient. These lines have been added as it meets the requirements of the current definition of community-acquired pneumonia.

2. The Authors should briefly discuss why they chose single-agent imipenem as second-line treatment after apparent levofloxacin failure. I would be grateful if they would indicate at least one literature reference to support this decision. Answer: Due to the persistence of fever, the pulmonologist in charge of the patient decided to change levofloxacin to imipenem on the third day of hospitalization before the blood culture results came in, maybe it was too soon to make that change, but it was his patient and he made that call. We have spoken to the Microbiology department and they only did the resistance test for ciprofloxacin. We assume that the isolate was also sensitive to levofloxacin in this case. We have added in the case presentation line 51, that levofloxacin was changed to imipenem on the third day of hospitalization (it was not included when the change was made). In the conclusion section line 56, we have added that our patient was treated for the first three days with levofloxacin, but due to persistent fever, it was modified to imipenem.

3. Did the Authors monitored procalcitonin (PCT) levels? If PCT returned to normal, readers would appreciate to know when. I suppose that the Authors decided, probably correctly, not to interrupt antibiotics on the basis of PCT levels only; they should briefly discuss this point. Answer: Yes, PCT levels were monitored. The PCT returned to normal after 2 weeks of treatment. We have added this useful information to our manuscript (case presentation section, line 19: After two weeks of treatment the blood cultures were negative and the PCT level was 0,10 ng/mL. Due to clinical, radiological and lab improvement the patient was discharged. The monitorization of PCT is of great utility to de-escalate antibiotic treatment and it should always be performed.

4. Although I appreciate their effort, in my opinion the literature search was not exhaustive nor systematic. So, my final suggestion is to change the title of the paper in "A case of community-acquired bacteriemic Streptomyces atratus pneumonia in a immunocompetent adult". Answer: We have modified the title of the manuscript as you’ve suggested. “A case of community-acquired bacteremic Streptomyces atratus pneumonia in an immunocompetent adult”