Reviewer's report

Title: Case Report: Nocardia associated with series of Patients with Ectopic Cushings

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Reviewer: David Lebeaux

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General comments
This paper describes 3 cases of patients who experienced nocardiosis likely because of ectopic Cushings. The topic is of interest and data in the field are clearly lacking.

The paper is well written.
However, several major issues must be taken into account.

Major Compulsory Revisions
It is now well known that *Nocardia asteroides* is an exceptional human pathogen. Recent phylogenetic studies demonstrated that the so-called « *N. asteroides* » group was actually made of numerous pathogenic species called *N. cyriacigeorgica*, *N. farcinica*, ....

For a comprehensive review, see Barbara Brown-Elliot’s paper in Clin Micro Review in 2006.

Therefore, the authors have 2 options: perform molecular biology study for the 3 strains (such as amplification and sequence of 16S gene) or modify the manuscript with *Nocardia spp.* instead of *N. asteroides*.

Microbiological data are clearly lacking. How was *Nocardia* genus identified: phenotypic? molecular biology? How was antibiotic susceptibility tested?

For figures 1 and 2, the same type of CT-scan slides should be chosen with the same position to allow comparisons.

For case 3, the authors state that the patient is fine but how long was the clinical follow-up?

Minor Essential Revisions
1-In the title, I would rather remove « with series of patients » in order to make it more straight forward

2-Put *Nocardia* in italics, please

3-What AFBC/S mean?

4-Doses of TS should be expressed as mg of trimethoprim/kg and should be
described for all cases

5-What does RBS mean?

6-In discussion, please homogenize and correct names of bacteria, fungi etc… Pneumocystis carini is now jirovecci. N. asteroids is now an exceptional pathogen, as stated above.

7-In the discussion of case 3, the authors explain that ectopic cushing might have favored nocardiosis but also propose that nocardia might have caused ectopic cushing. So, who started?

8-Cases are too long and should be shortened

9-Figure legends are not detailed enough.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests