Reviewer’s report

Title: Rapid Diagnosis of Propionibacterium acnes Infection in Patient with Hyperpyrexia after Hematopoietic Stem Cell Transplantation by Next-Generation Sequencing: A Case Report

Version: 0 Date: 30 Aug 2015

Reviewer: Ricardo Gianecini

Reviewer's report:

In the Case presentation part

1. the author use the phrase "CIS" retinoid acid

   Is this 13-cis-retinoid acid (isotretinoin)? We suggested changed to a common medical phrase with better understanding.

2. The author had mention some discrete old rashes on skin. In about 15-20% of patients of JMML are neurofibromatosis which usually carried freckles under arms or in the groin region. The author should state about the past medical condition. Is the skin lesion as a character of JMML? (discolored but not raise)

3. Dose the patient had Noonan syndrome which may render a favorable prognosis

4. The author shuld explain the purpose G test which was target for broad spectrum detection of fungal infection.

5. The patient was treated with meropenem and vancomycin initially. Are these antibacteria agents for prophylaxis purpose before HSCT as a common regime

6. There is no mention about (capofungin acetate)CAS which appeared on the figure (we suggested added it in the antifungal agent part for detailing.)

7. The author should explain why fever, mild expectoration and some discrete old rashes would make you think of tuberculosis bacillus infection. Is the fever with the characteristic of recurrent spiking fever with poor response to antibiotic use or ?

8. We suggested the author to state possible risk factor in this patient as the reason for possible survey including sputum collection and lumbar puncture

   Such as HIV? malnutrition? underling malignancy state? steroid use?

9. The author had mention about the chest CT change (pneumonia in the posterior basal segment of the lower lobe of right lung) The author shuld discuss that is the pneumonia predisposed by Propionibacterium acnes or caused by other possible pathogen.
9. Did the old rash fading related to the treatment response? Is the rash related to Propionibacterium acnes infection?

10. Acute GVHD usually occur within 100 days after HSCT, is the infection pattern in this case as acute GVHD, please state how to exclude the possibility (normal liver function).

11. After the complication of GVHD developed, what is the outcome of the patient (survival or expired due to other complication?)

In the figure part:

- In the figure 1, we suggested that the author added "day of hospitalization" in the clinical course part which can help the reader better understanding the timeline.

- In the figure 2, we suggested better figure resolution if there is other additional pictures; it will be better to localized the lesion site and the improved lesion site after treatment for better identification if the author failed to provide better picture.

- In the figure 3, we suggested the author reorganized the CXR figure order 2014/06/17 as Panel A and 2014/07/07 as Panel B which better correlated with timeline. The author should stress out the Figure 3D about the CT change in the lung. Why showed the Figure of brain MRI? If there is any positive finding associated with this infection, please state it in the context. If not, please delete the figure.

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

Yes

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

Yes

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.
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