

## **Response Letter**

(Manuscript NO: 89240)

Dear Editor and Reviewers,

First, we would like to thank you for your kind letter and for reviewers' constructive comments concerning our article. These comments are all valuable and helpful for improving our article. All the authors have seriously discussed about all these comments. According to the reviewers' comments, we have modified our manuscript to meet with the requirements of your journal. In this revised version, changes to our manuscript within the document are highlighted by using yellow-colored text. Point-by-point responses to the reviewers are listed below in this letter.

We hope this revision will meet the high standard of the World Journal of Clinical Cases.

Sincerely,

Huai-Qiang Hu

### **Reviewer 1:**

Specific Comments to Authors: The case is interesting, but presentation must be improved. I suggest changes in the title. "A brain abscess from oral microbiota approached by metagenomic next-generation sequencing" or something like that involving the role of mNGS in diagnosis and treatment is desirable. - All details of clinical (a suboptimal mental state???), lab (Levels of immune markers and tumor markers were normal???) and other studies ((MRI) revealed multiple signal abnormalities????) done should be declared. - Figure captions should be detailed, in such a way that reader (with general knowledge of medicine) could understand the content and meaning of figures. - Discussion should be clear about the advantages of changes in treatment after mNGS-approach.

**Response:** We thank the reviewer for giving us an opportunity to revise this manuscript. The reviewer's comments have been replied point-by-point.

**Comment 1:** Modify the title.

**Response 1:** We have changed the title to "A brain abscess from oral microbiota approached by metagenomic next-generation sequencing".

**Comment 2:** All details of clinical (a suboptimal mental state?), lab (Levels of immune markers and tumor markers were normal?) and other studies ((MRI revealed multiple signal abnormalities?) done should be declared. Figure captions should be detailed, in such a way that reader (with general knowledge of medicine) could understand the content and meaning of figures.

**Response 2:** (1) After discussion, we have changed the "a suboptimal mental state" to clear mind, clear language, normal emotions; orientation, understanding, memory, computing power were all normal. (Page 5, Line 3-5 of the physical examination) ;(2)The immune markers in laboratory tests included antinuclear extract antibody profile (Anti-Sm antibody, anti-Scl-70 antibody, anti-RNP antibody, anti-Jo-1 antibody, anti-SSA antibody and anti-SSB antibody), tumor anti-nervous system antibody profile(anti-hu, anti-Ri, anti-Yo, anti-Amphiphysin), and tumor marker (CA125, CA199, CA72-4, CY21-1, CEA, NSE, SCC, AFP, TPSA,FP5A and ProGRP),all of which were normal (Page6,lines 2-7); (3) We have detailed the brain magnetic resonance imagin (MRI) result of the patient (Page 6, lines 3-7 of the imaging examinations) .

**Comment 3:** The advantages of changes in treatment after mNGS approach.

**Response 3:** mNGS can quickly and accurately identify the species and source of pathogenic bacteria in brain abscess, which guide the clinical use of antibiotics more targeted. In this situation, mNGS avoid the abuse of antibiotics, and reduce the cost of antibiotics. it is an effective method to detect the pathogenic bacteria of brain abscess. (page 9-10, highlight in yellow).

we invited a native English-speaking expert to polish the manuscript,so if the manuscript still needs further polishing, please let us know and we will

polish it again.

At last, we would like to take this opportunity to thank you again for all your time involved and this great opportunity for us to improve the manuscript. We hope you will find this revised version satisfactory.