

Dear Reviewers:

On behalf of all the contributing authors, we thank you for providing us a precious opportunity to revise our manuscript entitled "Treatment of Candida albicans liver abscess complicated with COVID-19 after liver metastasis ablation: A case report" (Manuscript No: 85167). We appreciate the positive and constructive feedback provided by the editor and reviewers, which has helped us improve the quality of our paper.

We have invited two teachers of medical English to revise the grammar of the revised manuscript. The main corrections made in the revised manuscript and our responses to the individual comments of the editor and reviewers are as follows:

Reviewer #1:

1. Fungal abscess after chemotherapy, ablation therapy are rare occurrence. This case report is well written and can be published due to its rarity. Relation of Covid19 and fungal abscess is unclear. For me, it appears, the Covid19 is just incidental superimposed infection. Beside some case reports it is unclear whether Covid19 causes increase in mortality due to liver abscess.

Response: We agree with you that the patient with liver abscess was only coincidentally infected with COVID-19. Although many articles have reported increased mortality rates for all types of patients with COVID-19, few articles have studied the effect of COVID-19 on the prognosis of patients with liver abscess.

Reviewer #2:

1. Title should depict the exact diagnosis; Candida is missing here that should be included.

Response: Thank you for your suggestion. We have added "Candida albicans" to the title.

2. Did the patient have any symptoms regarding liver abscess? Fever? Pain abdomen or other signs of infections? Chief complaints and case presentation is incomplete and needs to be revised.

Response: Thank you for your comments. The patient was admitted for chemotherapy, and the liver metastasis was found after admission. The patient underwent liver ablation and developed a liver abscess. Therefore, symptoms or signs related to liver abscess were not described in "Chief complaint" and "History of

present illness” sections. Symptoms associated with liver abscess have been described in detail in “TREATMENT” section and are now shown in the revised manuscript in line 146 and 158.

3. 3. Line 106... patient had liver mets, underwent ablation. When did patient diagnosed with liver abscess and how?? Again, lot of information is missing from case presentation.

Response: Thank you for pointing this out. The patient developed a fever 3 days after chemotherapy, but her body temperature did not drop 3 days after antibiotic use, and she also developed vomiting, poor appetite, and right upper abdominal pain. This is when the patient developed the liver abscess, which is described in line 155 and 158 in the revised manuscript. In line 159, "Contrast-enhanced abdominal CT showed a liver abscess with a maximum cross-section of 6.9cm*6.0cm, accompanied by fluid and gas (Figure 1). On January 20, 2022, the patient underwent CT-guided percutaneous catheter drainage for hepatic abscess. The pus was brown and turbid with flocculent substance and it was sent for microbial culture", which is the basis for patients to diagnose liver abscess.

4. Please mention the normal values of lab parameters.

Response: Normal values for laboratory parameters were originally presented below table 1, in line 325 in the revised manuscript. Thank you for your suggestion. We have added normal values for laboratory parameters to “Laboratory examinations” section.

5. Authors should also add how candida albicans abscess was diagnosed. Regarding culture report etc.. Susceptibility report if available.

Response: Thank you for your comments. From line 161 in the revised manuscript, " On January 20, 2022, the patient underwent CT-guided percutaneous catheter drainage for hepatic abscess. The pus was brown and turbid with flocculent substance and it was sent for microbial culture "and line 169" On December 25, 2022, pus culture revealed Candida albicans, which was sensitive to fluconazole ", we can see the patient was diagnosed with a candida albicans liver abscess.

6. How the patient was diagnosed with COVID-19, any reason to suspect COVID ? All these

information regarding case has to be in 'case presentation- history and lab diagnosis section.

Response: In line 152 in the revised manuscript, the patient's RT-PCR and chest CT results had been described. We fully agree with you, and we have added RT-PCR and chest CT results for COVID-19 separately to "Laboratory examinations" and "Imaging examinations" sections.

7. I am curious to know why fluconazole was started in this patient who had invasive candidiasis?

Why not caspofungin or amphotericin which are preferable option in invasive candidiasis.

Fluconazole is usually a step-down therapy in invasive candidiasis.

Response: Pus culture revealed *Candida albicans*, which was sensitive to fluconazole. Therefore, the patient was treated with fluconazole for antifungal therapy.

8. In 'Discussion' section, first 2 paragraph regarding malignancy are irrelevant for the current case, can be removed.

Response: Thank you for your comments. Liver abscess is rare and clinicians rarely encounter such patients. However, pancreatic cancer is prone to liver metastasis, and clinicians often choose ablation surgery for the treatment of liver metastasis. In fact, the probability of liver abscess is very high for pancreatic cancer patients who have undergone Whipple surgery and then receive liver ablation. Liver abscess has a high mortality rate and requires early detection and reasonable treatment. We summarize the published articles to inform clinicians this. The alertness of the clinician to liver abscess may lead to earlier detection of liver abscess in patients. Therefore, we believe that the first two paragraphs of the "Discussion" section need to exist.

9. Authors should highlight the incidence of candida/fungal liver abscess and its outcome.

Response: We couldn't agree with you more. In the manuscript, we describe the incidence and prognosis of liver abscess. However, fungal liver abscess is rare and the published articles are only individual cases, so we cannot provide the incidence and prognosis of fungal liver abscess. Fungal liver abscess really needs more cases to be studied in depth.

10. How COVID-19 is relevant in this patient? Did the patient have any symptoms of LRTI?

Response: The patient was undergoing chemotherapy for an advanced malignant tumor, complicated with diabetes mellitus and a weakened immune system. The patient with liver abscess was only coincidentally infected with COVID-19. As described in “TREATMENT” section, the patient had lower respiratory symptoms such as fever and cough, and chest CT showed signs of viral pneumonia.

Thank you very much for your comments and suggestions. We look forward to hearing from you soon. If you have any queries, please do contact me at the address below.

Thank you and best regards.

Yours sincerely,

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