




CLINICAL IMAGE

Candidemia in COVID-19 treated with corticosteroids and tocilizumab

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Abstract

COVID-19 patients treated with anti-inflammatory drugs are rarely complicated by candidemia. Since immunosuppressive therapy can blunt inflammatory reactions, clinicians should actively survey latent candidemia during severe COVID-19 treatment.

KEYWORDS

candidemia, coronavirus disease 2019, corticosteroid, SARS-CoV-2, tocilizumab

A 72-year-old man was diagnosed with COVID-19 on the 10th day (day 10) of its development and was transferred to our hospital. He had a well-controlled history of dyslipidemia and hypertension. He had obesity (BMI: 21.7 kg/m²), fever (38.6°C), saturation of percutaneous oxygen of 92% (oxygen supply: 4 L/min), and a respiratory rate of 24/min. Chest high-resolution computed tomography showed bilateral ground-glass opacities (Figure 1A). We started treatment with dexamethasone (6 mg/day), but he was intubated on Day 13. Since laboratory data indicated a severe cytokine storm, a combination of high-dose methylprednisolone (125 mg/day for 3 days) and tocilizumab (8 mg/kg once) was administered intravenously.

The COVID-19 pneumonia ameliorated and he was extubated on day 20. However, serum β -D-glucan level was elevated (15 pg/ml) and blood culture tests detected *Candida albicans* (Figure 1B) on the day of extubation. The candidemia was effectively treated by intravenous administration of micafungin (150 mg/day) for 14 days after the confirmation of negative blood culture tests.

Candidemia secondary to high-dose corticosteroid¹ and tocilizumab² administration for COVID-19 is rarely reported. These agents not only suppress cytokine storm in COVID-19 but blunt inflammatory reactions. Latent fungal infections should be actively surveyed in similar cases.

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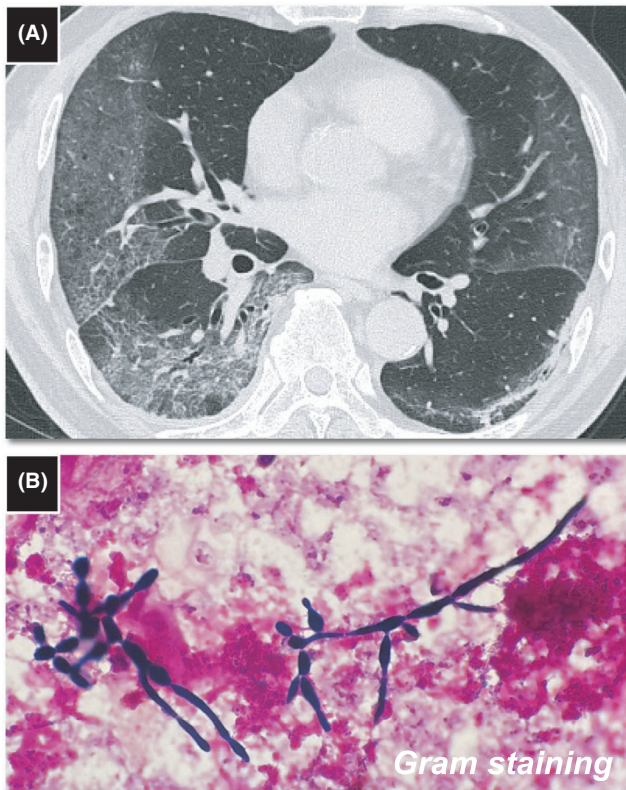


FIGURE 1 (A) Chest computed tomography showed bilateral ground-glass opacities, which were compatible with coronavirus disease 2019. (B) *Candida albicans* was detected by gram staining in blood culture tests

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

KY wrote the first draft and managed all of the submission process. KN and HH contributed to the clinical management of the patient. FO organized the manuscript.

CONSENT

Written informed consent was obtained from the patient to publish this case report.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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