## عنوان مقاله:

Risk factors and lethality associated with Candidemia in severe COVID-۱۹ patients


## محل انتشار:

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## خلاصه مقاله:

Background and Purpose: Candidemia remained important in the intensive care units(ICU) during the COVID-۱۹ pandemic. This study aimed to investigate the clinical and laboratory data on candidemia in COVID-۱۹ patients.Materials and Methods: The baseline characteristics, as well as laboratory and clinicalfindings of candidemia and non-candidemia patients, were compared. Candidemia was defined as the isolation of Candida spp. from blood cultures. The isolates were identified by VITEK® ۲ (bioMérieux, France) commercial method. Antifungal susceptibility was assessed using the E-test method. Univariate and multiple binary logistic regression analyses were performed to compare the variables.Results: In total, ۱۲۶ patients with the COVID-۱۹ disease were included. Candidemiawas diagnosed in ۴۴ (۳۵%) of the patients. The number of patients with diabetes mellitus and chronic renal failure was higher in the candidemia group. In the candidemia group, the duration of ICU stay of patients, the ۳۰-day mortality rate, mechanical ventilation therapy, and systemic corticosteroids (Prednisone) usage were significantly higher in candidemia patients. Moreover, the median white blood cell, neutrophils, and lactate dehydrogenase were higher in the candidemia group. Univariate and multiple binary logistic regression analyses were performed to compare the variables. Isolated species were identified as Candida albicans (n=۱۲, ۴۱%), Candida parapsilosis (n=۷, ۲۴%), Candida glabrata (n=۶, ۲۱%), Candida tropicalis (n=۳, ۱۰%), and Candida dublinensis (n=۱, ۳%). In total, three isolates of six C. glabrata species had dose-dependent sensitivity to fluconazole, and one C. parapsilosis was determined to be resistant.Conclusion: The COVID-۱۹ patients who are admitted to ICU have many risk factors associated with candidemia. The most common risk factors for the development of candidemia were mechanical ventilation, diabetes mellitus, neutrophilia, and low hemoglobin level. The most frequently isolated species was C. albicans. Moreover, caspofungin was found to be the most effective drug in vitro. No significant resistancepattern was detected against the isolated species. It should be noted that risk-stratified antifungal prophylaxis in the ICU is possible.

**کلمات کلیدی:**
COVID-۱۹, Candidemia, Intensive Care Unit, Risk factor