

Characteristics and Outcomes of COVID-19 patients with Candidemia at a Community Teaching Hospital in Chicago – One Year Follow Up



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Background

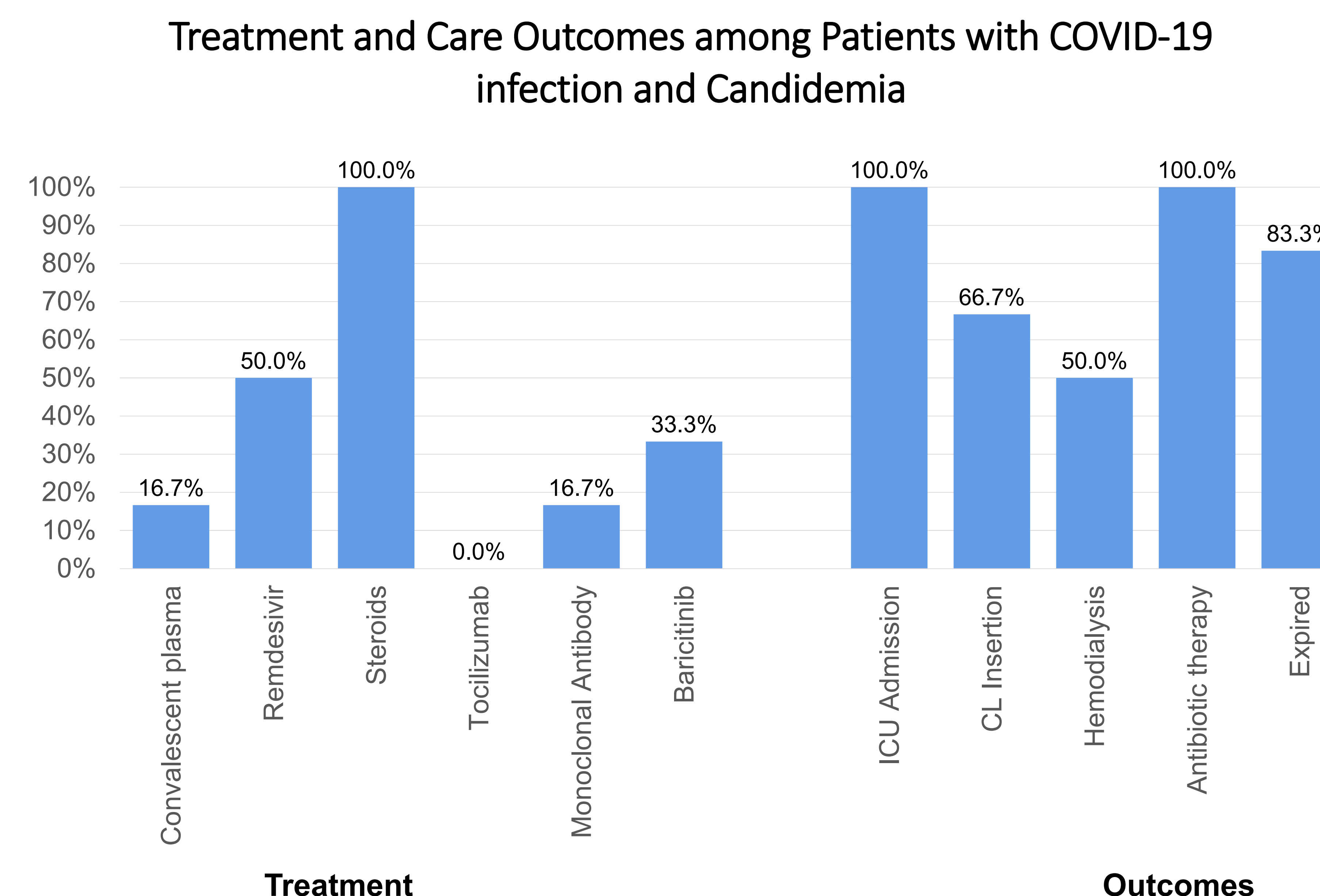
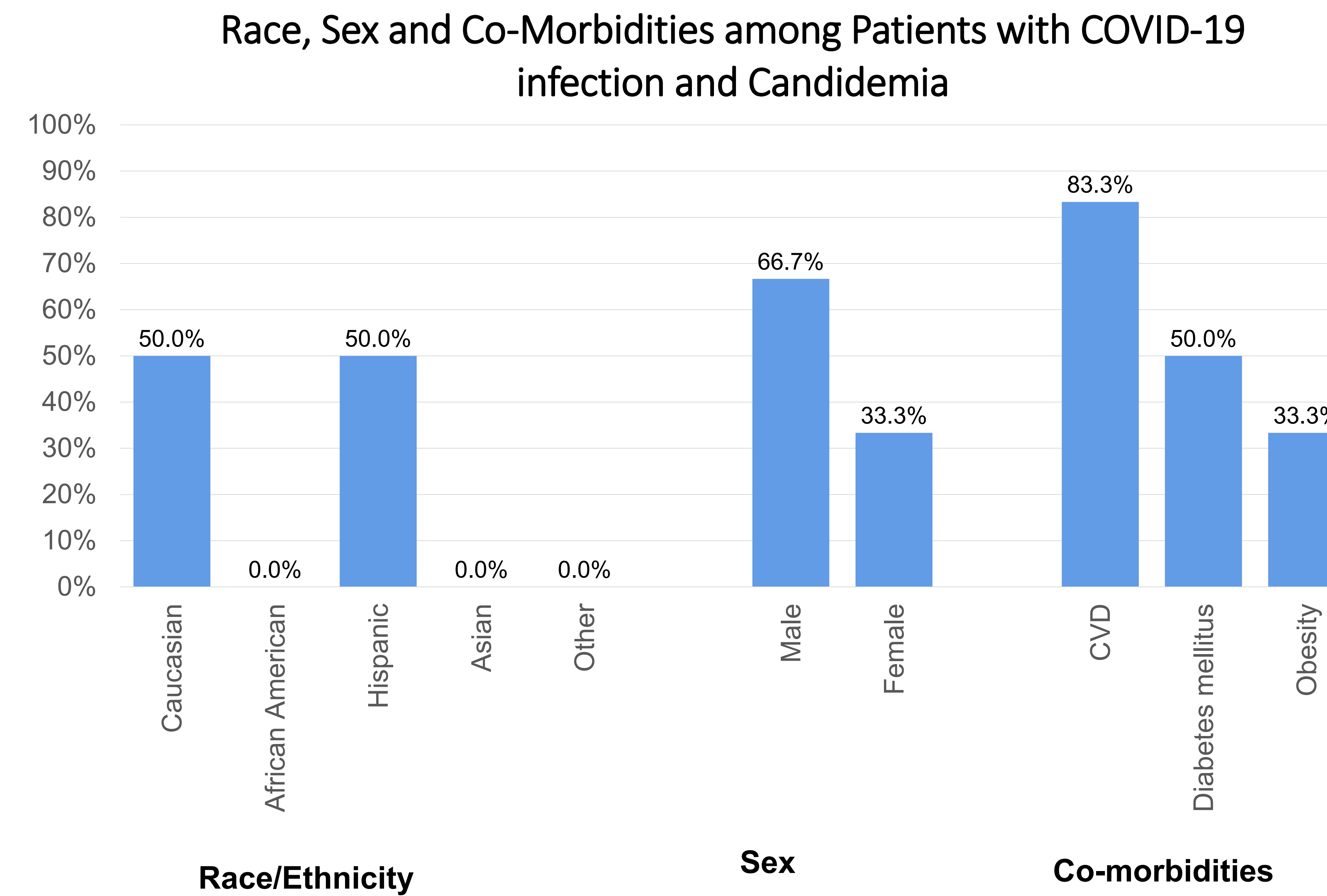
We previously reported an alarming increase in cases of nosocomial Candidemia at our hospital which were associated with acute COVID-19 infection (Abstract 287 IDWeek 2021). We reinstated mitigation strategies including staff education, line insertion check list and antimicrobial stewardship. 1041 patients with acute COVID-19 were admitted to our hospital in 2021 (January to December) and 6 out 12 cases (50%) of Nosocomial Candidemia were seen in patients with acute COVID-19 infection. We re-evaluated the risk factors and associated mortality of hospitalized COVID-19 positive patients with Candidemia.

Methods

We performed a retrospective chart review of the 6 patients with Candidemia and confirmed COVID-19 infection at our 292-bed community teaching hospital in Chicago, Illinois from January through December 2021. We report a descriptive analysis of the demographic characteristics, comorbidities, complications, and outcomes of these patients comparing both years.

Results

The average age of our study population was 71 years (older); 67% were male. The average hospital length of stay (LOS) was shorter 27 days. The mean time from admission to the development of Candidemia was slightly longer 18 days. Associated co-morbidities included cardiovascular diseases (CVD) in 83%, diabetes mellitus (DM), in 50%, and obesity in 33%. Treatments for COVID-19 included Steroids (100%), Remdesivir (50%) and Baricitinib (33%). All patients were managed in the intensive care unit (ICU) and 67% had a central in place at the time of Candidemia. Half of the patients (50%) required hemodialysis (HD); all patients were treated with multiple antibiotics. The average LOS in the ICU was 20 days (shorter). Despite antifungal treatment, 83% expired.



Characteristics and Outcomes of COVID-19 Patients with Candidemia (n=6)

Age		
Min Age	56	Years
Max Age	82	Years
Mean Age	70.7	Years
Median Age	71.5	Years

Race/Ethnicity		
Caucasian	50	%
African American	0	%
Hispanic	50	%
Asian	0	%
Other	0	%

Sex		
Male	66.7	%
Female	33.3	%

Associated Co-Morbidities		
Cardiovascular Disease (CVD)	83.3	%
Diabetes mellitus	50.0	%
Obesity	33.3	%
Kidney disease	16.7	%

Treatment		
Convalescent plasma	16.7	%
Remdesivir	50.0	%
Steroids	100.0	%
Tocilizumab	0.0	%
Monoclonal Antibody	16.7	%
Baricitinib	33.3	%

Outcomes		
Average Admission Length of Stay	26.7	Days
Average ICU Length of Stay	19.7	Days
Mean Time from Admission to Candidemia	17.7	Days

Intensive Care Unit (ICU) Admission	100	%
Central Line Insertion (CL)	66.7	%
Hemodialysis	50.0	%
Antibiotic therapy	100	%
Expired	83.3	%

Conclusion

Incidence of Candidemia in acute COVID-19 infections decreased by 56% in one year after reinstating mitigation strategies in our hospital. However, Candidemia remains a menace in hospitalized patients with acute COVID-19 infection. Associated risk factors remain history of CVD, DM, obesity, prolonged hospital LOS, requirement for multiple CL, HD, treatment with multiple antibiotics, treatment with steroids and a long stay in the ICU. The associated mortality rate of COVID-19 patients with Candidemia remains very high.