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Background: Small case series of patients with active cancer and coronavirus infection have been described since the beginning of the pandemic. The patients most affected by this infection are those with lung cancer but it also affects other types of cancer such as breast cancer. We described the characteristics of patients with breast cancer and COVID 19, their associated risk factors, treatment and evolution.

Methods: We reviewed 2216 medical records of all patients admitted to hospitalization with COVID-19 diagnosis between 5 March and 13 May 2020. Study data were collected and managed using RedCap electronic data capture tools. We described breast cancer patients, associated risk factors, mortality and outcome.

Results: We detected 85/2216 patients cancer with a mortality rate 47% (40/85). Of all cancer patients, 11% (10/85) had breast cancer. Median age breast cancer patients was 70.5 years old (35-86). Most frequent staging was locally advanced (50 %, 5/10) and most of them were on hormone therapy (30%, 3/10). As associated risk factors, 20% (2/10) had heart disease, 50% (5/10) had hypertension, 20 (2/10) were obese, 30% (3/10) had diabetes, 40% (4/10) had dyslipidemia and only 10% (1/10) was smoker. Half the patients (5/10) had bilateral pneumonia, none of them were admitted to the ICU and 20% (2/10) died. All patients were treated with the combination of azithromycin and hydroxychloroquine and 40% (4/10) with lopinavir/ritonavir. Mortality was associate with high LDH levels (1529 vs. 264 U/L, p = 0,0002), high PCR levels (159.15 vs. 29 mg/L, p = 0.0014) and ARDS (1/1 vs. 1/9 without ARDS p = 0.0140). A possible relation has been found with history of hypertension (2/5 vs. 0/5 without hypertension, p = 0.114) and bilateral pneumonia (2/5 vs. 0/5, p = 0.114).

Conclusions: COVID 19 appears to have lower mortality in breast cancer patients than in other tumor types. High LDH and PCR levels and ARDS could be related with increased risk of death. Combined treatment in these patients with azithromycin and hydroxychloroquine might be a good option.

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