THE USE OF TOCILIZUMAB IN TWO HOSPITAL CENTERS IN SOUTHERN BRAZIL DURING THE COVID-19 PANDEMIC: AN OBSERVATIONAL STUDY

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BACKGROUND

In late 2019, a new coronavirus was identified as the cause of a cluster of pneumonia cases in Wuhan, China. It spread rapidly, resulting in a worldwide pandemic. As the understanding of COVID-19 is evolving, new therapeutic interventions have been studied to reduce mortality and the length of hospital stay. Tocilizumab, an IL-6 inhibitor have been proposed as a possible treatment in COVID-19 hospitalized patients.

METHODS

An observational study with 32 patients was conducted from October 2020 to June 2021, in two hospitals in Paraná, Brazil. The entry criteria was a confirmatory test for COVID-19 (RT-PCR, serology or antigen) less than 14 days from the admission with C-reactive protein greater than 7.5 mg/dL, in patients older than 18 years. The aim of the study was to determine mortality, length of stay, progression to mechanical ventilation, along with demographic and laboratory findings.

RESULTS

A total of 32 patients underwent tocilizumab therapy. The mean age of patients was 51.34 years (SD = 16.97), 18 were males (56.25%) and 14 were females (43.75%). The average weight was 85.75 kg (SD = 13.66). Of these, 18 (56.25%) were obese, five had hypertension (15.62%), three (6.25%) had diabetes and two (6.25%) had a current or previous history of solid/hematological tumor and seven with other diseases (21.87%). The time of symptoms when the patients received TCZ was 10.46 days. The average length of stay was 18.9 days. Mortality in the group was seven deaths (21.8%), with 25 patients (78.12%) being discharged alive. Six patients (18.75%) were on mechanical ventilation when they received the medication, and in the remaining 26, six (23.08%) progressed to mechanical ventilation even after tocilizumab.

CONCLUSION

Compared to the larger recovery study with tocilizumab, the patient profile in our observation was younger (63.3 vs. 51.3), but with the same CRP pattern (14.3 vs. 14.5) and same duration of symptoms on admission (9.0 vs. 8.8). In assessing mortality, our group had lower mortality (31.0 vs. 21.8%). Regarding the length of stay, the results were convergent (19.0 vs 18.9). Thus, in general, the results found in our experience are in line with the largest study developed, showing the real-life applicability of tocilizumab in COVID-19.

KEYWORDS

Tocilizumab, COVID-19, Therapy.