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**Clinical characteristics and risk factors of severity of COVID19 infection in patients with hematological malignancies****Rym EL FATMI***University Tunis EL MANAR, Tunisia*

**Background:** Patients with hematologic malignancies (HM) are considered vulnerable to severe COVID19 infection due to their underlying malignancy and their anticancer therapy. Aims: To determine the clinical and biological characteristics of COVID19 infection in HM and the risk factors of COVID19 severity and mortality.

**Methods:** This prospective study included COVID19 infected patients, treated for HM in the hematology department of Aziza Othmana Hospital, between October 2020 and January 2021. Results: 68 patients was included. Median age was 47 years, sex ratio: 1.5. Patients were treated for acute leukemia;43%, lymphoma; 37%, CLL; 9%, myeloma;9%, and MDS; 4%. 63% had active disease (AD) while 37% were in remission (RD). Thirty-three patients (46%) had at least 1 comorbidity. The main symptoms of the infection were fever (63%), cough (49%), dyspnea (40%) and diarrhea (30%). Seventeen patients had a chest scanning, 12 (70%) of them had a damage >25% of the lungs (60% and 85% in the AD and RD groups respectively [p=0.15]). During the infection, 44% of patients had lymphopenia and 21% grade 4 neutropenia. Median CRP was of 154 mg/l [1.9-658]. Twenty (29%) patients developed severe infection (37% and 16% in the AD and RD groups respectively [p=0.09]). Seven required admission in an ICU (14% and 4% of the AD and RD groups respectively [p=0.14]). Significant risk factors of the severity of the infection were : age >45 years (p= 0.008), ≥1 comorbidity (p=0.009), dyspnea (p< 0.0001) and CRP >150 mg/l (p =0.033). Twelve patients (18%) died from COVID19 infection (23% and 8% in the AD and RD groups respectively [p=0.11]). Dyspnea and grade 4 neutropenia were the independent risk factors of death (p=0.011 and p=0.049 respectively).

**Conclusion:** High rates of COVID19 infection severity and associated mortality was noted especially in neutropenic patients. Although no difference was observed in the radiological severity between AD and RD groups, there was a trend to a more clinically severe infection in the AD group

**Biography**

Rym EL FATMI has completed her PhD at the age of 29 years and a Master's Degree in Intensive Care in Infectious Pathologies and a Master's Degree in Chronic Pains from the Faculty of Medicine of Tunis, Tunisia and a Master's Degree in Transfusion, Hemobiology and Cellular Therapy from Faculty of Pharmacy of Monastir, Tunisia and a Postgraduate Diploma in Leadership and Management in Health from the University of Washington. She ensured the role of Secretary general to the Tunisian Society of Hematology (2020-2021), she has published more than 20 papers in reputed journals.