Simple Prognostic Markers in Patients with Hematological Malignancies and COVID 19 Infection, Single Center Experience.

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Background

COVID-19 pandemic rapidly spread from China to other countries, Clinical features of patients with Covid-19 have revealed a few potential biochemical markers associated with in-hospital mortality. Numerous studies have proposed the use of haematological markers that seem to associate with increased severity and mortality in patients with Covid-19

Objective

To evaluate the prognostic value of some haematological parameters, and inflammatory biomarkers effect on overall survival (OS) and mortality on patients with haematological malignancies infected with COVID 19.

Materials & Methods

Design: A cross sectional study.

Setting: Clinical Haematology Department, Ain Shams University Hospital over the period from December 2020 to October 2021.

Patients or Other Participants: 50 adult Egyptian patients with different haematological malignancies

Interventions: All participants underwent full history taking and thorough physical examination and laboratory measures that included hematological and immune parameters and some of the coagulation tests. All laboratory parameters were measured using sysmexXN1000(hematological parameter), Beckman coulter chemistry analyzer AU 480 and STAGO –max.

Summary

There are simple, easy and rapid tests such as the neutrophil-to-monocyte ratio (NMR), inflammatory biomarkers (Ferritin and D-dimer) and some haematological parameters (HCT, RBC) that have prognostic value on OS and mortality on patients with haematological malignancies infected with COVID 19.

Discussion

The mean of Neutrophil to Monocyte ratio was 0 – 110 and median IQR 7.40 (3.0 – 16.67) X103/uL and there is significant correlation between neutrophil /monocyte ratio and OS with p value (0.031), there is significant correlation between OS of those patients and D dimer, Ferritin, Haematocrit (HCT) and red blood cell (RBC) count.