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Outcomes of Patients of Eastern Mediterranean Region with Lymphoma and COVID-19. Does Recent Chemo Immunotherapy Have a Role on Severity?

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Introduction

Outcomes of patients with hematological cancers and Corona Virus Disease-19 (COVID-19) have been dismal with high rates of hospitalization, admission to intensive care unit and high mortality of up to 20% compared to general population, more so pronounced among black and ethnic minorities. There is hardly any data on outcomes of patients with lymphoma and concurrent COVID-19 from eastern mediterranean region. From eastern mediterranean area no similar studies have been reported so far.

Methods

Here we describe outcomes of eleven consecutive patients who had history malignant lymphoma (either treated or currently on treatment) and now had developed COVID-19 infection, recently admitted at our tertiary care center between April and July 2020 with minimum of 10 days follow up.

Results
Total of eleven (n=11) patients were identified with COVID-19 who also had diagnosis of malignant lymphoma. There were 5 males and 6 females and median age was 31 years (Range 19-59). Diagnoses included five cases of diffuse large b cell lymphoma, two cases of primary central nervous system lymphoma, three cases of classical Hodgkin lymphoma, one case of low grade non Hodgkin lymphoma. Two cases were newly diagnosed and had not received any treatment while six patients were on active treatment and three patients had received treatment more than six months prior. Three patients were on Rituximab based therapy at the time of infection and two patients had prior autologous stem cell transplant. Seven patients had mild COVID-19 while four had severe form of disease. All patients were on supportive care and treatment included various options including chloroquine, antibiotics, convalescent plasma, interferon, enoxaparin, Tocilizumab depending on treating physician's discretion. Four patients had home isolation and recovered fully, while seven patients needed hospitalization of which three made full recovery while three needed admissions to intensive care unit (ICU) due to severe COVID-19. Out of three patients in ICU, two needed noninvasive ventilation, one needed mechanical ventilation. At the time analysis one ICU patient made complete recovery and discharged home while two others are still in hospital. After a median follow up of 37 days (range 10-87), no mortality has been recorded so far. Out of four patients with severe COVID-19, one was newly diagnosed and treatment naïve, and one was in remission for more than a year, the remaining two were on active rituximab based chemotherapy for lymphoma. However, 3 out of 4 patients had cleared COVID-19 by polymerase chain reaction testing.

Conclusions

Our results suggest that COVID-19 causes significant morbidity in patients with lymphoma like other studies, however there has been no mortality so far in our cohort with relatively long follow up, although some patients are still admitted at the time of analysis. One of the reason for lower mortality could be younger age group. Our study also suggests that over two thirds of the patients had only mild disease out of which majority of them were on some sort of therapy or had undergone recent transplant, making us wonder if recent immunochemotherapy may have some protective effect against cytokine storm or severe COVID-19 by having dampening role on immune system. Half of the patients who had severe disease were not on any therapy while the other two who were on active therapy, although still inpatients, had cleared the virus interestingly. Further studies needed to examine this further, our results from this ethnic community are encouraging.

Disclosures

No relevant conflicts of interest to declare.

Author notes

* Asterisk with author names denotes non-ASH members.
