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CORRESPONDENCE

Chronic Myeloproliferative Neoplasms

Ruxolitinib withdrawal due to the COVID-19

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To the Editor:

We have read the paper by Barbui et al. [1] reporting high mortality in myeloproliferative neoplasms (MPN) patients with COVID-19 who discontinue ruxolitinib due to the acute illness with great interest. Uncertainty about the risks of COVID-19 in MPN patients and lack of robust information prompt the need for such studies which are of immense value for everyday clinical practice. However, there are several things clinicians should bear in mind while interpreting data from the current study.

Although ruxolitinib treatment was shown to be safe among COVID-19 patients with severe systemic hyperinflammation [2], it failed to demonstrate significant reduction in the proportion of COVID-19 patients who experienced death, respiratory failure requiring mechanical ventilation, or admission to the intensive care unit in the Phase III trial (https://www.novartis.com/news/media-releases/novartis-provides-update-ruxcovid-study-ruxolitinib-hospitalized-patients-covid-19). Effects of ruxolitnib discontinuation can be judged only among patients that are exposed to the drug (45 out of 175 [25.7%] in the current study [1]). Logistic regression model that includes ruxolitinib discontinuation as a variable is automatically limited to the subgroup of patients with available data. Thus, reported multivariate analysis seems to be performed in 45 patients or less who received the drug (mostly high risk myelofibrosis patients) and is not representative for the whole MPN cohort. Decision to discontinue ruxolinib (and other immunosupressive drugs) upon hospitalization is not random and can be guided by the presence of objective clinical reasons for the discontinuation like worsening clinical condition, inability to take peroral medication or contraindications for ruxolitnib treatment (thrombocytopenia, anemia, bleeding, and bacterial sepsis), all of whom might be negative prognostic factors per se. We do not know was this the case in the current study or these parameters were similarly distributed among ruxolitinib discontinuing and continuing group at study baseline.

We would like to congratulate the authors on the presented work as it offers unique insights into the biology of MPN in the context of COVID-19 disease. In our opinion, understanding of presented data can be improved by stratifying patients' clinical characteristics by ruxolitnib discontinuation status to better understand potential confounders. Also, the logistic regression model for the whole MPN cohort would be of high value, especially to appreciate the association of ruxolitnib treatment with survival in the context of chronic cardiovascular comorbidities that are known to be detrimental in COVID-19 patients.

Compliance with ethical standards

Conflict of interest The authors declare no competing interests.

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