

Letters

TO THE EDITOR

Prognosis of MPN Patients Experiencing Acute Thrombotic Events and the Potential Role of Cytoreduction



With great interest we have read the paper by Leiva et al¹ reporting a lower risk of in-hospital death and cardiac arrest in patients with chronic myeloproliferative neoplasms (MPNs) and acute myocardial infarction (AMI). We congratulate the authors for providing these valuable insights. This is indeed a highly relevant clinical scenario, and the current study provides valuable information for both physicians and MPN patients. Several studies have also reported favorable or similar clinical outcomes in MPN patients with acute thrombotic events. Clinical outcomes of MPN patients after acute cerebrovascular events may be better than that of the general population.² We have also recently reported similar prognosis regarding acute and long-term clinical outcomes in MPN and non-MPN patients presenting with acute pulmonary embolism.³

There are important needs for the field as it relates to the management of MPN patients. For example, MPN-specific risk scores may be needed for optimal risk stratification of MPN patients presenting with acute thrombotic events. The Simplified Pulmonary Embolism Severity Index was not useful for risk prognostication of MPN patients with pulmonary embolism.³ Similar results have also been shown for MPN patients with atrial fibrillation in which the diagnosis of myelofibrosis outperformed the well-established CHA₂DS₂-VASc score for thrombotic risk assessment, suggesting that MPN-related disease biology may be prognostically more important.⁴

Moreover, questions also remain about the possible pathophysiological mechanisms underlying the favorable to similar clinical course of AMI in MPNs. We hypothesize that the addition of cytoreductive treatment in addition to standard therapy for

AMI may have provided clinical benefit in MPN patients. Hydroxyurea has important antithrombotic and anti-inflammatory properties and has been used for decades to prevent and treat vaso-occlusive sickle cell crisis. The protective effect of hydroxyurea has also been shown in MPN patients with respect to recurrent cerebrovascular events,² and some MPN experts have even questioned whether its favorable properties may also translate to non-MPN patients.⁵ Thus, it would be of great value if the authors could provide information on the potential role of cytoreductive drugs in their study. We hope these can also be addressed in future studies.

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The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the [Author Center](#).

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