Interferon Alfa in the Treatment of Philadelphia-Negative Chronic Myeloproliferative Neoplasms

To the Editor: Two important articles that update our knowledge about the pathophysiology and management of myeloproliferative neoplasms (MPNs) were recently published in Journal of Clinical Oncology.1,2 We were privileged to participate as coauthors in the manuscript by Barbui et al.1 However, we believe there is a dearth of information pertaining to the use of interferon alfa (IFN-α) in Philadelphia-negative MPNs in both articles. We believe that the use of IFN-α in the MPNs polycythemia vera (PV), essential thrombocytopenia (ET), and primary myelofibrosis (PMF), post-ET and post-PV myelofibrosis, is no more experimental than other forms of treatment and should not be considered as a second-line drug only, on the basis of the evidence detailed in this letter. We think this information is currently clinically relevant and important and should be brought to the attention of JCO readers.

Since the first report on the use of recombinant IFN-α-2 (rIFN-α-2) in the treatment of MPNs,3 the long-term efficacy of rIFN-α-2 in patients with PV has been established in several series of patients who were treated with rIFN-α-2b4-7 or pegylated (PEG) -IFN-α-2a.8,9 With both preparations, the phlebotomy rate has been significantly reduced, and complete and partial clinical and hematologic remissions occurred in virtually all patients.10,11 Significant reduction in the Janus kinase 2 allele burden has been recorded after treatment with both PEG-IFN-α-2a8,9 and PEG-IFN-α-2b.12 Indeed, some patients may achieve long-lasting complete and molecular remissions, which may be among the most important effects of IFN-α-2. This approach may also translate into inhibition of disease progression and development of myelofibrosis.11,19

In summary, there is now abundant evidence to indicate that low-dose IFN-α-2 preferably PEG-IFN-α-2, is the drug of choice for patients with ET and PV who are younger than age 60 years and certainly should be considered for patients with PMF in its hypercellular phase, post-ET and post-PV myelofibrosis.

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