Long Term Follow-up of Polycythemia Vera Patients Treated with Imatinib Mesylate

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Dr. Silver and his colleagues recently described in this journal. Their study of the treatment of Polycythemia Vera with imatinib mesylate and kindly noted our earlier reports. The design of both studies was comparable, although, the median age of our patients was somewhat higher at 54 compared to 47 for their series. Our initial response rate was somewhat higher at 75% versus 49%. However, our initial treatment period included a 12-week induction with a rapid dose escalation period compared to a 12-month induction with dosing at investigator discretion. Perhaps of greater significance is that 15 out of 20 of our patients were treatment naïve compared to 14 of 37 of Dr. Silver’s patients. Median platelet counts were higher in Dr. Silver’s patients at 599,000 compared to 316,000 in our series, and beginning hematocrits were slightly higher in our patients at 50 versus 42%. Initial white counts were equivalent.

Despite these differences, our results are remarkably similar, and we summarize our results with long-term therapy. Median time on study for our patients was slightly longer at 17 months versus 12 months for Dr. Silver’s. We agree with Dr. Silver that neither were platelet counts well controlled with imatinib, nor was there an effect of treatment on JAK-V617F allele burden. None of the patients in our study developed myelofibrosis. Four (4) patients chose to go off study at a median time of 4 months (range 1 week to 5 months). Diarrhea and malaise were the most common reasons for going off the study. Six (6) patients failed to respond and were removed from study at a median of 7 months; one of which was a late failure at 71 months of treatment. (Range 2-71 months). Two (2) patients were removed for noncompliance at 5 months and 7 months, respectively, and 1 patient was lost to follow-up after 70 months of treatment, while responding to therapy. Five (5) patients were removed for the development of adverse events at a median time of 63 months, (range 18 to 101 months). These adverse events were summarized in our prior report and included: diarrhea, GI bleeding, periorbital edema and fatigue. One patient, however, developed worsening of his hypertensive cardiomyopathy at 77 months of treatment. Three (3) patients remain on the study at 96 months, 108 months and 117 months, respectively. Our data then, support the findings of Dr. Silver and his colleagues. Although the size of our trial does not really allow for sub-group analysis, we would agree, in general, with Dr. Silver’s conclusion, that younger patients with more modest elevations of platelet count appear to be among the long term responders. Although, initial response in our series was quite high, tolerability to imatinib with
prolonged treatment, remained a problem, and the development of cardiomyopathy late into the follow-up period in a younger patient, is of some concern. We agree, however, that there does appear to be a subgroup of patients who can achieve long-term benefit, and likely this reflects molecular heterogeneity as has recently been proposed by Dr. Tefferi.³
REFERENCES:

