Impact of increase the dose of Imatinib on the Achievement of Molecular Response in CML patients: Retrospective Analysis

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Abstract

Background

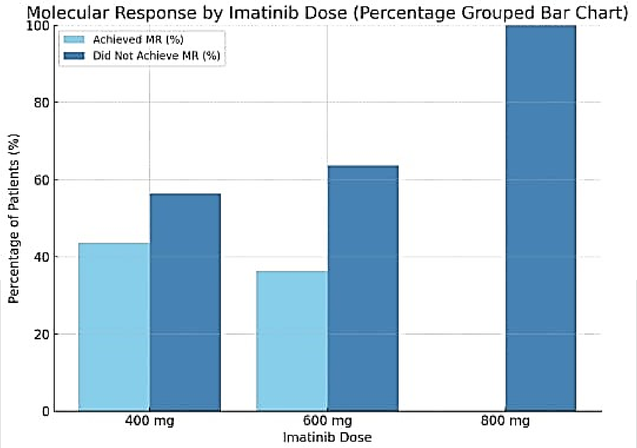
Imatinib mesylate is thyrosine kinase inhibitor that selectively targets the ATP binding site of the BCR-ABL protein, with dose 400mg/day is stander of care in chronic phase CML patients ,Study aimed to evaluate increase dose of Imatinib to achieving molecular response(MR) in patients whom had inadequate MR).

Method

Retrospective comparative study were 67 CP CML patients included with an age of 18 to 74 years old, out of 67 patients only 12(17.9%) whom began treatment with Imatinib at dose 400mg/day, and subsequently underwent to increase dose of Imatinib either 600mg or 800mg,The association between increase dose and achieve the MR by using Pearson Chi-square .

Result:

Among the 67 chronic phase CML patients included in the study, 24 patients (35.8%) who remained on the standard 400 mg/day dose of Imatinib achieved a major molecular response (MMR), while 31 patients (46.3%) did not. Of the patients whose dose was increased to 600 mg/day, 4 (33.3%) achieved MMR and 7 (58.3%) did not. Only one patient received an 800 mg/day dose, and this patient did not achieve MMR. Statistical analysis indicated no significant association between Imatinib dose escalation and molecular response ($p > 0.05$).



Conclusion

although increasing the dose of Imatinib can benefit sub group but result from retrospective analysis revealed no statistically significant association between increasing the Imatinib dose and achieving Molecular Response(MR), in the patients whom inadequate. Recommendations for further study with higher patient's number . Keywords: Imatinib, dose increase ,CML,MR

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