With the financial toxicity and other adverse events of 2G TKI, Is Imatinib still a valid option in higher risk young patients with newly diagnosed chronic phase CML?

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Abstract

Over the last 2 decades, there has been a dramatic improvement in the survival of patients with CML after the introduction of the TKI [1] .

For patients with CP-CML, the use of the Sokal or ELTS risk stratification scores helps to predict outcomes and choose the first-line TKI

Background

For chronic phase, CML with intermediate- or high-risk score, 2G TKIs may have the additional benefit over imatinib in achieving response milestones [2] , but this is at expense of significantly higher cost as well as significant AEs .

Objective

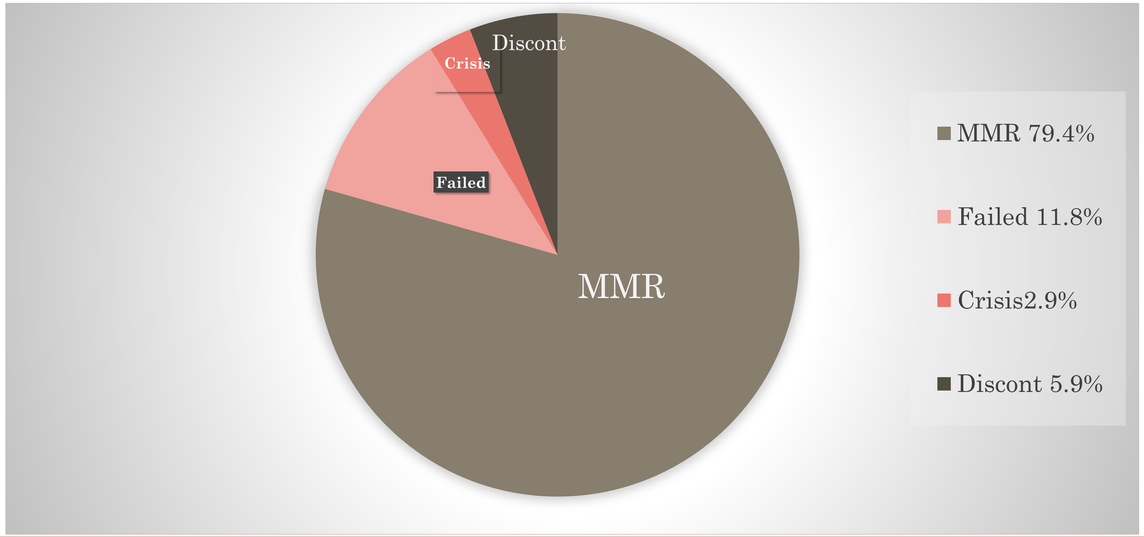
To assess response rates and toxicity profile of Imatinib as first line treatment in higher risk young patients (less than 45 years) newly diagnosed chronic phase CML .

Materials & Methods

This is a Single arm retrospective study conducted at NCI included 34 patients less than 45 years with ND CP-CML treated with Imatinib at a dose of 400 mg / day as first line between January 2023 till January 2024.

ND patients with CP-CML with intermediate and hisk risk score by Sokal and ETLS score, ECOG performance ≤ 2

Follow up by RT-Quantitative PCR for BCR/ABL transcript 12 Month of initiation of treatment.



Summary

After a median follow up of 1 year, MMR was seen in 27 patients (79.4 %), One patient (2.9 %) developed blastic crisis after 3 months of initiation of treatment with fetal outcome and 4 patients (11.8 %) failed to achieve MMR by 12 Month and were shifted to Dasatinib. Regarding the adverse effects, two patients (5.9 %) discontinued treatment at 3 and 4 months due to severe skin rash and prolonged unresolved cytopenia respectively.

Discussion

With the high financial toxicity as well as other adverse events of 2G TKI, starting with Imatinib as first line in higher risk young patients (less than 45 years) newly diagnosed chronic phase CML remains a valid option in the context of achievement of MMR with acceptable toxicity profile with the need of enrollment of larger patient population with head-to-head comparison with 2G TKIs for better results

References

1.Siegel RL et al.,2023

2.Hochhaus A et al.,2023