ANALYSIS OF THE TOXICITIES ASSOCIATED WITH TYROSINE KINASE INHINITORS IN PATIENTS WITH CHRONIC MYELOID LEUKAEMIA

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Background and importance

The development of TKIs has meant a big step in hematology leading to a normal life expectancy in CML patients. Safety of chronic TKI use is especially important because patients with CML may need lifelong TKI treatment. Although most adverse events (AEs) initially occur early in the course of treatment, the onset of some toxicities, including clinically significant cardiovascular and pulmonary toxicities, may be delayed months, or even years, after the start of therapy.

Aim and objectives

The aim of this study is **to describe ITKs´ toxicity observed in our CML patients** in order to gather information that help us in managing AEs, preventing such complications and favor patients compliance in our daily clinical practice.

Material and methods

Retrospective study of patients with CML treated in our hospital with TKIs within June 2010-July 2019.

Data Collected:

1. TKI prescribed
2. Treatment line
3. Toxicities (hematological (TH)/non-hematological (NHT)) according to CTCAE v5
4. Time of occurrence

1. Demographic data
2. Charlson-index
3. Sokal-Index
4. Concomitant medication
5. Molecular response
6. Dose modifications/discontinuations

Results

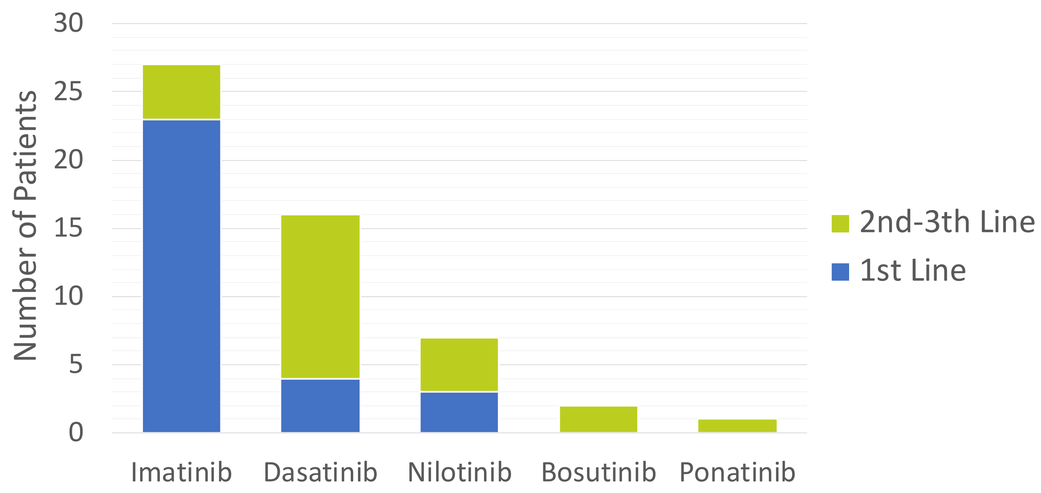
A total of 37 patients (19/37 women, median age 59 years [33-89]) were included.

Median **Charlson-index** was 2 [0-8]. Patients had a median of 4[0-12] drug prescriptions, where 12/37 patients were polimedicated.
Our patients showed low **Sokal Index** at diagnosis (14), medium (6) and high (3).

When data was collected, 18 patients achieved a deep molecular response (12/37: imatinib and 3/37 nilotinib).
Deep molecular response was considered for RM5, and medium molecular response for RM 4.5 to RM2 and non-molecular response.

The median toxicity/patient was 3[1-13]
Dose was reduced by toxicity in 7/37

Figure 1. At the time of data analysis the pattern of TKI prescription



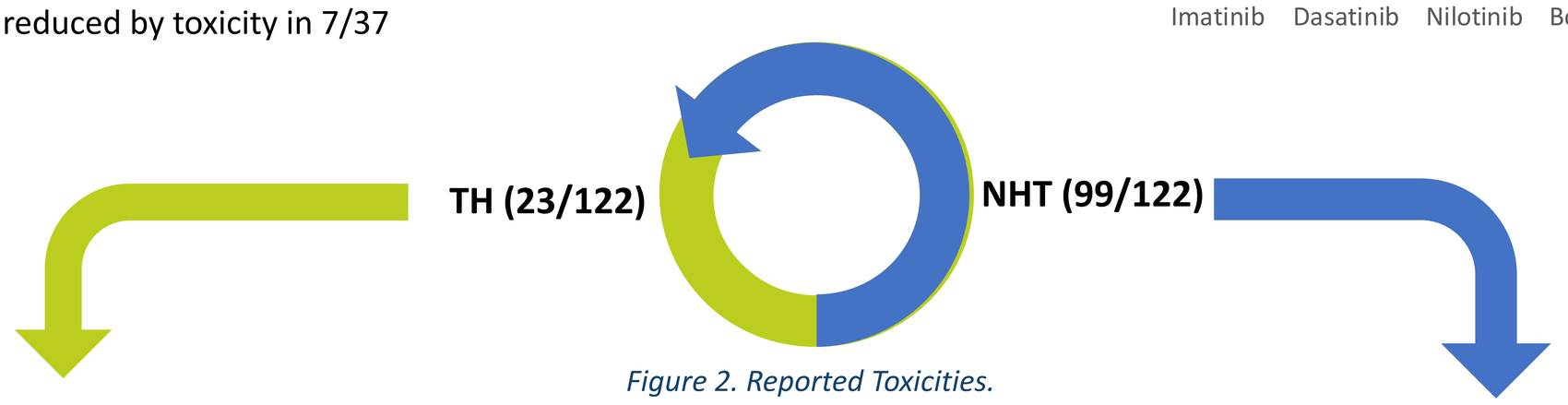


Figure 2. Reported Toxicities.

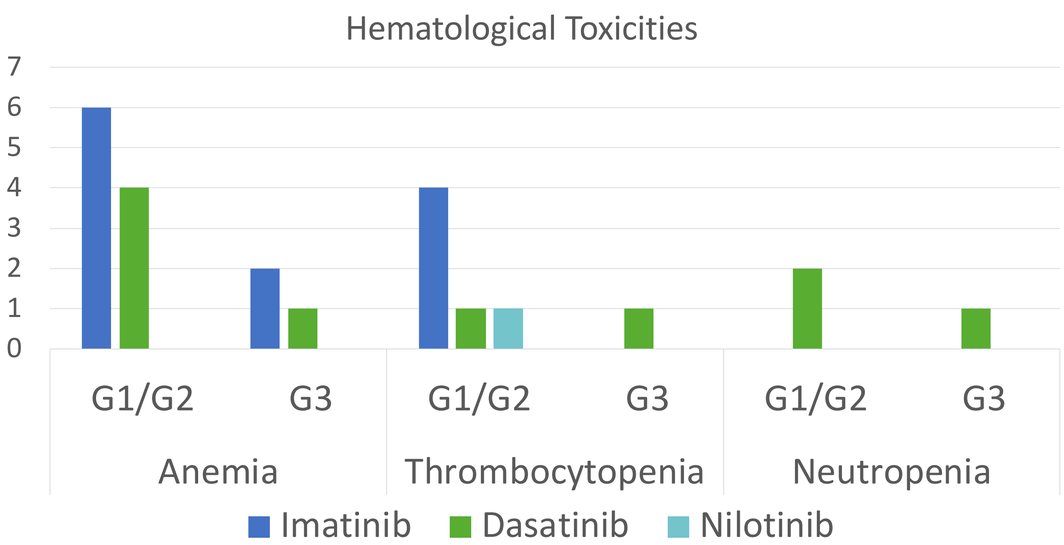


Figure 3. Hematological tooxicities, with an average time of apperance of 18 months (28 days-8 years)

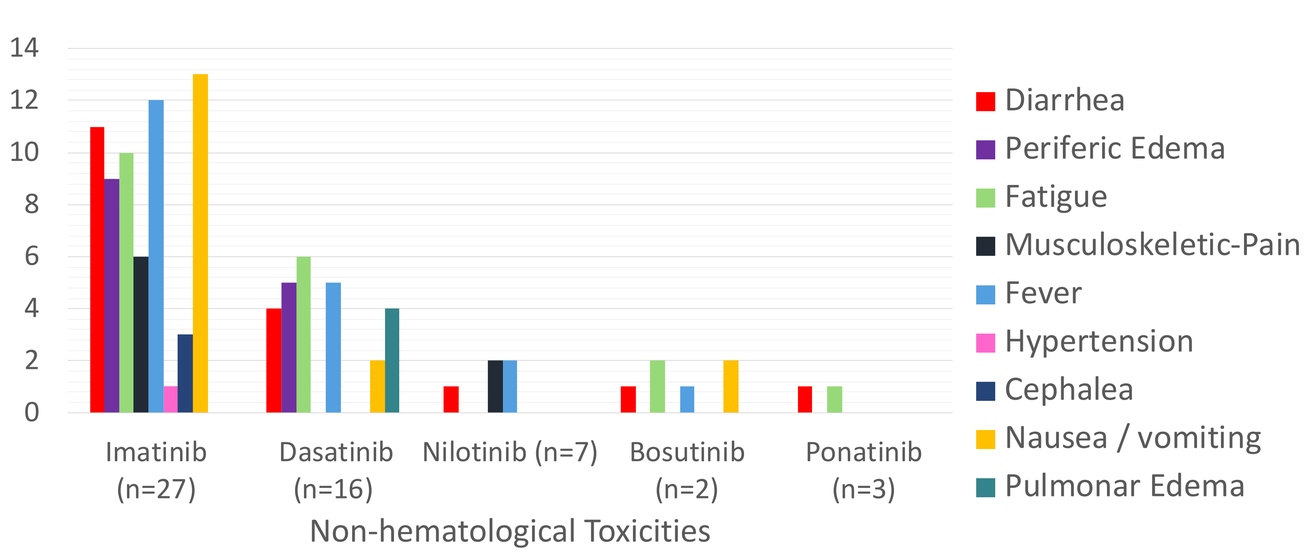


Figure 4. Non-Hematological toxicities, with an average time of apperance of 100 months (8 days-7 years)

Conclusions

- ✓ Our study shows comparable hematological toxicities among different TKI, but on an individual basis, it exist different non-hematological toxicities profiles with these agents.
- ✓ Altogether, side effects of targeted agents appear manageable and reversible. Dose modifications or treatment discontinuations due to toxicity are common.
- ✓ Given the good effectiveness of TKI in CML, is of utmost importance an early recognition and management of EAs, in order to avoid treatment discontinuation.

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