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

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Background and importance
The development of TKIs has meant a big step in hematopoietic 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 TKIs’ 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.

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 RMS, 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

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.

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

Figure 2. Reported Toxicities.

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

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