IMPACT OF LOW GRADE EFFECTS OF TYROSINE KINASE INHIBITORS ON THE QUALITY OF LIFE OF PATIENTS TREATED FOR CHRONIC MYELOID LEUKEMIA

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BACKGROUND

Patients with chronic myeloid leukemia (CML) have a better life expectancy after treatment with tyrosine kinase inhibitors (TKIs). The possibility of adverse effects (AEs) with long-term treatment may result in dose adjustment of these drugs, even to discontinuation or non-adherence, which may negatively affect treatment efficacy and patients' quality of life (QoL).

OBJECTIVES

The aim of our work is to identify low grade AEs of TKIs and their impact on the QoL of patients treated for CML

MATERIALS & METHODS

Data from 79 patients with CML were analyzed.
We used the FACT-Leu questionnaire, which is a validated tool for assessing QoL during leukemia treatment. Patients were seen either at day hospital or during biological evaluations and clinical controls.
The AEs of the TKIs were reported at each interview and then grouped according to their severity, and to the terminology NCI CTCAE (version 3.0) of drugs side effects.
The correlation between TKIs low grade AEs and QoL scores was assessed using the Spearman test. The ANOVA test was used to determine the change of QoL depending on the grade of these side effects.

RESULTS

Of the 79 patients (Table 1), 30 (38%) experienced side effects with TKIs , with dose adjustments in 15 (19%) patients, and therapeutic discontinuation in 8 (10%).
According to NCI CTCAE terminology, AEs were of grade 1 in 8 (10%) patients, and grade 2 in 8 (10%).
The average FACT-Leu QoL score for all TKIs treated patients was 129 [84-170], lower in patients with low AEs (118 [87-155], higher in patients without AEs: 135 [84-170] (Table 2).
The FACT-Leu score was correlated with the presence of TKIs adverse effects (p = 0.01).
The ANOVA test shows a variability of the FACT Leu score according to the grade of AEs (p= 0.04) (Figure 1), as well as of the symptoms assessed by the FACT questionnaire (Figures 2 and 3).

Characteristics	n (%)
Age	
Median , range (years)	51 [27-84]
Sex	
Female	42 (46.8%)
Male	37 (53.2%)
Disease Stage	
Chronic	74 (93.7%)
Accelerated/Acute	5 (6.3%)
Treatment	
Imatinib	55 (69.6%)
Nilotinib	11 (13.9%)
Dasatinib	13 (16.5%)
Response to treatment	
Haematological	79 (100%)
Molecular	58(73.4%)
Adverse effects grade	
Grade 1	8 (10.1%)
Grade 2	8 (10.1%)
Grade 3-4	4 (17.7%)

Table 1. Patients characterstics.

Fact Leu score	Mean	Min.	Max.	SD
All the patients	129	84	170	24.70
Without Adverse Effects	135	84	170	23.87
With all grade Adverse effects	118	84	160	20.90
With low grade Adverse Effects	118	87	155	20.13

Table 2. FACT LEU scores of the patients regarding to AEs.

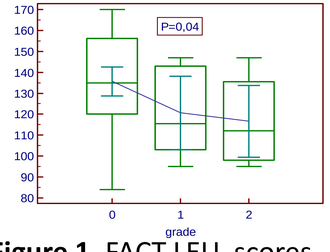


Figure 1. FACT LEU scores regarding to AEs grade.

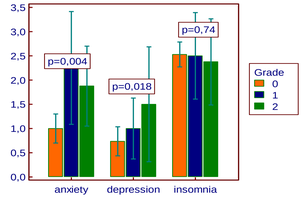


Figure 2. Patients symptoms and AEs grade (1).

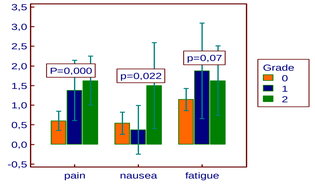


Figure 3. Patients symptoms and AEs grade (2).

CONCLUSIONS

This study shows that low grade AEs of TKIs can alter QoL of patients treated for CML .
Their impact as well as other factors must be taken into account for the optimal treatment of newly diagnosed CML patients.