

ANALYSIS OF THE INFLUENCE OF AGE ON MAJOR MOLECULAR RESPONSE, DEEP MOLECULAR RESPONSE AND SURVIVAL OUTCOMES IN CHRONIC MYELOID LEUKEMIA (CML) PATIENTS TREATED WITH TYROSINE KINASE INHIBITORS (TKIS).

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Abstract: PF419

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Background

Given the good survival outcome of CML patients treated with TKI, and the prognostic value of age at diagnosis, it is needed to dissect more precisely the relative weight of this variable, considering other prognostic variable of interest.

Aims

We analysed different TKI modalities used as therapy for CML-CP in a long-term analysis of different age group

Methods

In a retrospective cohort analysis, we included data from 874 patients with CML-CP treated in clinical practice with TKI and included in the Spanish Registry of CML (RELMC) (17 hospitals around all the country) between 2000 to 2014. The main aim of the study was to describe long-term outcomes of response such as best major or deep molecular response (MMR and DMR, respectively), and survival, in different age groups. DMR was defined as MR⁺ or better.

Patients were in first chronic phase treated with TKIs in first line or after IFN alpha. 46% pts were treated only with imatinib (median follow up 73 m), 20% with imatinib and then 2ndGTKIs (follow up 70m), 24% with TKIs after IFN (follow up 149m) and 11% with 2GTKIs in first line (follow up 31 m). 525 were men, 349 women. Median age: 52 y (14-94). Indexes distribution as show in table 1.

Results

Age groups: Patients were divided in 3 groups depending age at diagnosis. Group 1: Less than 39 years Group 2: 40-64 years Group 3: \geq 65 years. We analysed influence of Sokal score and ELTS score in each group. Patients \geq 65 y had a significantly higher frequency of high score.

MMR: With a median of follow up of 82 months (1-351 months) from diagnosis, 77 months (1-311 months) from first treatment and 70 months (1-191 months) from first TKI treatment, the rates of major molecular response for each group were: G1: 55% G2: 53% G3: 46%.

Deep molecular response: The rates of deep molecular response for each group were : G1: 49% G2: 46% G3: 47%. Only those patients with high ELTS and belonging to G2 or G3 had a significantly lower rate of DMR.

Death: Rates for each group were: G1: 7%, G2: 10%, G3: 28%

CML-related death: Rates for each group were: G1: 3,7%, G2: 4,4% G3: 6,7%)

Long-term survival (OS): Figure1: We analyzed the survival for each age group, and also by age slices of 10 years. We found an statistical significant lower overall survival for each decade after 50 years of age. Sokal and ELTS discriminated significantly when considering the group as a whole, but if we consider the different age groups as defined here, only ELTS adequately discriminated in patients between 40 and 64 years, and in those with \geq 65 years. Neither Sokal nor ELTS did it in the younger group.



Conclusion

In the setting of a multicentric, hospital-based CML registry, treatment with TKIs is very variable, resulting in a great number of sequential combinations of TKI. The rate of major or deep molecular response was similar in all age groups. Only patients with high ELTS in 40-64 y and ≥ 65 years group showed worse deep molecular response, and the same applied for OS. In conclusion, in our study ELTS score discriminated better than Sokal score.

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