SECOND-GENERATION TYROSIN KINASE INHIBITORS IN FRONT-LINE THERAPY. COMPARING RESPONSES

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Background

Second-generation tyrosine kinase inhibitors(2G-TKI) has increased considerably over the last few years. Despite good and maintained results with imatinib, 2G-TKI have shown a growing trend in their use due to their quick and deep response. However, there is no clear positioning between nilotinib and dasatinib.

Objective

To analyze differences in the response according to the 2G-TKI used in front-line therapy in chronic myeloid leukemia(CML) patients

Materials and methods

Descriptive retrospective observational study in a tertiary hospital. Patients with front-line therapy with nilotinib or dasatinib from June 2011 until April 2016 were included.

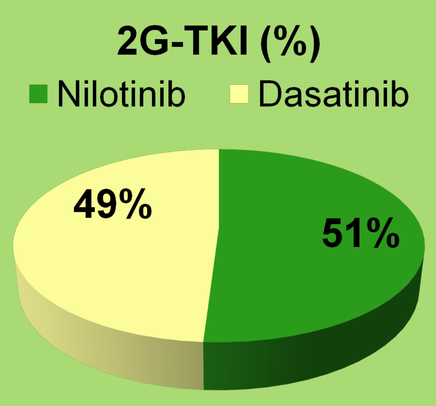
VARIABLES

Sex,age, time from diagnosis, p210 rearrangement, hydroxiurea cytoreduction, 2G-TKI, dosage regimen, time with TKI.

- Response: molecular response → European Leukemia Net (ELN) 2013 criteria.
- Analysis according to 2G-TKI:
  - ✓ Degree of response at 3,6 and 12 months employed → Mann-Witney U test.
  - ✓ Timing to major molecular response(MMR) and major cytogenetic response(MCR) → Chi square test.
- Data were analysed with SPSS 19 software.

Results

22 patients, 77%(n=17) male, mean age 56,5(±14,3),
Median time since diagnosis: 33 months (2-57), median time with TKI: 28,5 months (3-57).
p210 rearrangement in 18 patients, 100% received hydroxiurea



- ✓ Three patients required dose adjustment (1 nilotinib, 2 dasatinib)
- ✓ No significant differences **in terms of degree and time to MMR or MCR** between nilotinib and dasatinib in any point of the study(**p>0,05**).

Conclusions

- ✓ Our results suggest that both 2G-ITK are reasonable options in front-line therapy, with fast and deep responses obtained.
- ✓ No significant differences were found between them among our population.
- ✓ Consequently, treatment choice should be done according to toxicity, comorbidities, clinician experience and dosage-regimen.

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