

Sakr R, Hawi J, Massoud M, Kerbage F, Nasr F, Chahine G*

Context • In 2000s, the introduction of tyrosine kinase inhibitors (TKIs), imatinib, has improved the survival outcome of chronic myelogenous leukemia (CML) patients. In Lebanon, we rapidly adopted this treatment strategy. To our knowledge, this is the first study reporting the survival rates in Lebanese CML patients.

Objectives • To report the rate of major molecular response (MMR) and complete cytogenetic response (CCyR) and to analyze the overall survival, progression free survival and event free survival in CML patients treated with frontline imatinib in three university hospitals in Lebanon.

Patients • We retrospectively reviewed the chart of 46 patients diagnosed with CML and treated with frontline imatinib 400 mg per day from 2000 and followed up to 2015. In all patients, initially two diagnostic tests were done, the cytogenetic analysis and the qualitative molecular testing of BCR-ABL transcript. Male to female sex ratio was 3:1. The median age at diagnosis was 49 years and the mean age was 44.52 years. At the time of diagnosis, 46 patients were in chronic phase. All patients were started on imatinib 400 mg per day. 35 patients had typical karyotype, 8 atypical karyotype and 3 patients had hypoploidism.

Results • The achievement of MMR at 18 months was 58.69%. The cumulative rate of CCyR at 18 months of therapy with imatinib at standard dose was 67.39%. The event-free survival was 75.86% and 74.14% at 5 years and 8 years respectively. The progression-free survival was 77.59% and 75.86% at 5 years and 8 years respectively. Overall survival was 98.27% and 98.27% at 5 years and 8 years respectively. 12 patients progressed and received second generation TKIs as salvage therapy by second generation of TKIs. They are still alive with major molecular response.

Conclusions • In our study population the achievement of MMR and CCyR as well as the OS, PFS and EFS were similar to previous published data. Reaching high survival rates with first generation TKIs in a country with limited resources can be a reasonable option to approach CML patients

Keywords: Chronic myeloid leukemia (CML), imatinib, progression free survival (PFS), event-free survival (EFS), overall survival (OS)

*Holy Spirit University of
Kaslik, USEK
Lebanon