STATE-OF-THE-ART MANAGEMENT OF CHRONIC MYELOID LEUKEMIA IN THE EMERGING REGIONS

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Background

Chronic myeloid leukemia (CML) is characterized by a relapsing evolution, increased disease burden and poor prognosis in the advanced phases.

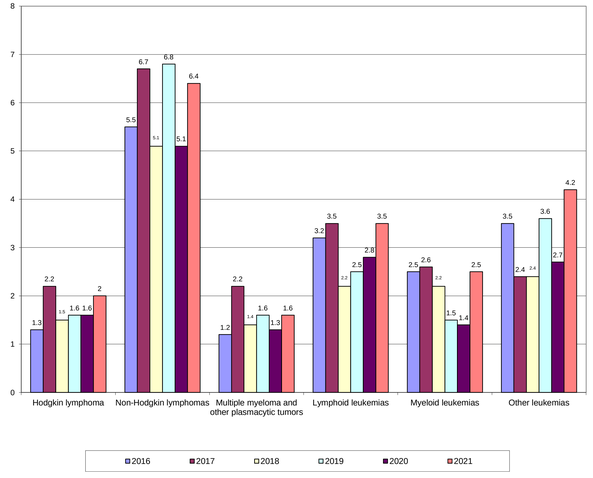


Figure 1. Incidence of hematological malignancies in the Republic of Moldova per 100000 of population

Objective

The assessment of diagnosis and management options of CML in the Republic of Moldova

Materials & Methods

We performed the case-control study of 134 CML patients, who were treated and followed up at the comprehensive cancer center – Institute of Oncology between 2007–2022. The real-time PCR was used with the aim to determine the expression of BCR-ABL p210 and p190 transcripts while proceeding CML diagnosis. The study was related to the out-patient and hospitalized care. Tyrosine kinase inhibitors (TKIs) were supplied by The Max Foundation via Max Access Solutions (MAS). Imatinib, nilotinib and ponatinib were used as a front-line therapy in the newly diagnosed CML patients and in the cases of resistance to non-TKIs treatment. Complete response (CR) rate estimated the short-term results of chemotherapy, and the overall survival (OS) – long-term results.

Summary & Discussion

The patients' age ranged between 14-81 years. The median age was 51.4 ± 2.13 years. There were 78 (58.2%) males and 56 (41.8%) females. CML was diagnosed in chronic phase in 122 (91,04 ± 2,32%) patients. The rate of Ph-positive bone marrow (BM) cells ranged between 20 – 100%. In 72.7% of cases Ph-chromosome was detected in over 70% of the BM cells. BCR-ABL p210 transcript range was 21.84–100%. In 69.8% of cases BCR-ABL transcripts were identified in over 65% of the peripheral blood cells. Under the TKIs therapy the hematologic CR was achieved in 92.8% of cases, and the molecular CR – in 28.5%. One- and 5-year OS of patients treated with TKIs was 98.5% and 91%. IFN α-2b was used with partial response in cases of resistance to conventional chemotherapy (CC) and TKIs. In 79% of patients treated initially with CC, only the minor cytogenetic response was obtained.

Conclusions

MAS program may be considered as an efficient and transparent management option to ensure CML patients with potentially curable TKIs medication in the emerging regions regardless the age, gender and social categories. The Max Foundation delivers TKIs medication to CML patients on a regular basis, accelerating health equity in low- and middle-income countries.

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