survival, particularly through its interaction with Estrogen Receptors (ER). The study by Ladikou et al.[1] highlights that estrogen receptors are expressed in B-cell malignancies, including CLL, and predominantly involve the ER $\beta$  isoform, which has antiproliferative effects when selectively activated. Importantly, the disruption of estrogen-mediated pathways may lead to reduced proliferation and enhanced apoptosis of malignant B-cells. To the best of our knowledge, this is the second case of SR of CLL after letrozole treatment in the literature.[2] Future studies need to focus on the genetic causes of SR of CLL.

**Keywords:** Chronic lymphocytic leukemia, Letrozole, Spontaneous regression.

## References:

- Ladikou EE, Kassi E. The emerging role of estrogen in B cell malignancies. Leuk Lymphoma. 2016;58:528-39.
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**Table 1** Peripheral lymphocyte counts of the patient.

| Date           | Lymphocyte Count | Letrozole |
|----------------|------------------|-----------|
| September 2018 | 7.02             | -         |
| January 2020   | 8.58             | -         |
| August 2022    | 10.45            | -         |
| December 2023  | 8.11             | -         |
| February 2024  | 1.49             | +*        |
| July 2024      | 2.37             | +         |
| November 2024  | 2.8              | +         |
| January 2025   | 3.37             | +         |

<sup>\*</sup>Letrozole 2.5 mg/day was initiated in January 2024.

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**Adult Hematology Abstract Categories** 

Chronic Myeloid Leukemia

PP 14\_Case report

## ANALYSIS OF RESPONSE TO FIRST-LINE THERAPY WITH IMATINIB IN AZERBAIJANI CML PATIENTS

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Objective: Imatinib mesylate is a selective tyrosine kinase inhibitor that has become the prototype for targeted therapy in hematologic malignancies. The introduction of Imatinib (IM) for the treatment of Chronic Myeloid Leukemia (CML) has significantly altered the natural course of the disease. The drug is specifically designed to inhibit the expansion of cells

expressing the BCR/ABL1 fusion gene and receptors for stem cell factor, c-kit tyrosine kinases, and platelet-derived growth factors. To evaluate the response of Azerbaijani patients in the chronic phase of Chronic Myeloid Leukemia (CML) to treatment with imatinib mesylate (400 mg/day), monitored via Real-Time Quantitative Polymerase Chain Reaction (RTqPCR). Methodology: This study spans from January 2015 to December 2019 and includes 242 patients in the chronic phase of CML. A total of 1,187 samples were collected from these patients at specific intervals: 3-5 months, 6 -11 months, 12-17 months, 18-23 months, and ≥24months after the initiation of IM therapy. Among them, 69 patients had samples analyzed at all time points. The quantification of BCR/ABL1 was performed using RT-qPCR, with ABL1 serving as the control gene. The BCR/ABL1 ratio results were expressed as a percentage according to the International Scale (IS). Results: The molecular response profile of patients with samples from all time intervals (n=69) showed that during the first interval (3-5 months), 73.9% (51/69) of patients exhibited a 1-log reduction in BCR-ABL1IS transcript levels. At 12-17 months, monitoring indicated that 92.7% (64/69) of patients achieved at least a 1-log reduction, while 72.4% (50/69) attained at least a 2-log reduction. This observation did not apply to the second group, as initial molecular testing for some patients was only performed at 12–18 months or later after starting IM therapy. Conclusion: Unsatisfactory responses can be attributed to improper drug use due to side effects, non-adherence to therapy, delayed monitoring, or secondary resistance to the drug. Proper adherence to treatment and consistent monitoring play crucial roles in therapeutic outcomes. These findings reaffirm the necessity of regular monitoring every three or six months. This study demonstrates that the response to IM in Azerbaijani CML patients in the chronic phase aligns with the responses reported in randomized international studies.

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**Adult Hematology Abstract Categories** 

Aggressive B-cell lymphoma

PP 15\_ Case report

## OUTCOMES OF DIFFUSE LARGE B-CELL LYMPHOMA IN OLDER ADULTS TREATED IN RESOURCE-CONSTRAINED SETTINGS

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