Adult Hematology Abstract Categories

Chronic Lymphocytic Leukemia

PP 12_Case report

CLINICO-BIOLOGICAL PROFILE AND MANAGEMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA

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Objective: Nearly 60%–70% of patients with Chronic Lymphocytic Leukemia (CLL) are oligosymptomatic at diagnosis. The objective of the study was highlighting the clinical evolution and hematological patterns, as well as the assessment of short- and long-term results of treatment of patients with CLL. **Methodology:** We realized a prospective and cohort study. The clinical-hematological features of CLL, the short- and long-term results of therapeutic management were studied in 62 patients, who were treated and followed up in the Institute of Oncology of Moldova between 2019–2024. The study was related to the outpatient and hospitalized care. The diagnosis was proved according to the IWCLL criteria based on the complete blood count with the detection of lymphocytosis ≥ 5 × 10^9/l, bone marrow aspiration with lymphocytic infiltration ≥ 30% and immunophenotyping. The study was carried out on a basis of the data collected from the outpatient records and from the observation sheets of the patients according to the questionnaire drafted for the achievement of the settled objective. All patients were staged according to Binet and RAI Classifications. **Results:** There were 25 (40.3%) males and 37 (59.7%) females in the study group. The age of the analyzed group was between 53 and 87-years (average age – 55.2-years). Forty-two (67.7%) patients with CLL belonged to the age category of 60–79 years. The ECOG-WHO score at diagnosis was 2-3. Most of the patients (34% or 54.8%) were referred to hematologist in stage A. Twenty-three (37.1%) patients were diagnosed in stage B and 5 (8.1%) – in stage C. Nine (39.1%) cases of autoimmune hemolytic anemia and 8 (34.8%) cases of metaplastic anemia were revealed in stage B. Leukocytosis varied between 88.7–325.0 × 10 /l (average value – 161.2 × 10 /l). Lymphocyte count ranged between 81%–97% (average value 89%). Bone marrow aspiration in stages A and B revealed lymphocyte expansion of 33%–91%. The respiratory bacterial infections turned out to be frequently diagnosed (29 patients, or 46.8%): acute pneumonia in 10 (16.1%), acute bronchitis in 7 (11.3%), relapse of chronic bronchitis in 11 (17.7%), and tuberculosis in 1 (1.7%) patient. The patients with progressive stage A, stage B and C disease received combined immuno-chemotherapy. Under the antineoplastic treatment, the ECOG-WHO score improved to 0–1. Overall survival over 3 and 5 ears was 100%. **Conclusion:** Our prospective study of CLL proved a predominance of female gender, patients of 60–79 years old and stage A at diagnosis. The prognosis emerged to be relatively favorable, with the overall survival rates sustained at 100% within 3 and 5 years.

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PP 13_ Case report

UNEXPECTED SPONTANEOUS REGRESSION IN CLL AFTER LETROZOLE TREATMENT: COINCIDENCE OR CONNECTION?

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Introduction: According to iwCLL guidelines, remissions are divided into two groups: Complete Remission (CR) and Partial Remission (PR). CR in Chronic Lymphocytic Leukemia (CLL) is defined by having peripheral blood lymphocytes less than 4 × 10^9/L, no significant lymphadenopathy (lymph nodes < 1.5 cm), no splenomegaly or hepatomegaly, absence of disease-related constitutional symptoms, and blood counts showing neutrophils ≥ 1.5 × 10^9/L and platelets ≥ 100 × 10^9/L, while PR requires at least two parameters from group A (lymphoid tumor load and constitutional symptoms) and one parameter from group B (hematopoietic system) to improve if previously abnormal. Hence, we present a case with Spontaneous Regression (SR) of CLL right after letrozole treatment. **Case presentation:** A 74-year-old female was admitted to the hematology clinic in 2018 due to lymphocytosis. The complete blood count of the patient showed a leukocyte count of 9.9 10^9/L with 6 10^9/L lymphocytes, a hemoglobin concentration of 15 g/dL, and 194 10^9/L platelets. The flow cytometry revealed 23% of lymphocytes displayed CD5+, CD20+, CD22+, CD19+, CD23+, Anti-Kappa+, CD38-, HLA DR+ immunophenotypes. In the physical examination, there was no splenomegaly or lymphadenomegaly. The patient was classified as Rai stage 0 CLL and managed with observation. In 2023, the patient had a mass on the left breast. Since they had a family history of breast cancer, the patient was referred to general surgery. The breast biopsy showed invasive lobular carcinoma. The breast cancer profile was T2cN0M0 (IB), estrogen and progesterone receptors were above 95%, cErbB2 (–), and low ki-67 index (13%). The patient was administered to the oncology for treatment. The patient received letrozole 2.5 mg/day and radiotherapy, respectively. One month after letrozole initiation, the peripheral blood lymphocyte count was observed within normal limits (Table 1). Throughout the one-year follow-up period before this case was reported, the levels remained within normal limits. The last flow cytometry still presented CLL, except atypic B-cells' count decreased to 10%. The patient's malignancies are considered under remission and the follow-up continues. **Discussion:** SR of CLL is rare and not fully understood. Estrogen is known to influence B-cell function and

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 ERβ 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:

1. Ladikou EE, Kassi E. The emerging role of estrogen in B cell malignancies. Leuk Lymphoma. 2016;58:528-39.
2. Paydas S. Regression of chronic lymphocytic leukemia with aromatase inhibitor-letrozole? Leuk Res. 2008;33: 566-7.

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	+

*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 (RT-qPCR). **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 ≥24-months 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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