TKI. The presence of severe fibrosis in the bone marrow (Grade 2–4) was found to be poor prognostic.

Conclusion: In our study, although the overall survival rate is consistent with the literature, it is evident that it is still insufficient. Therefore, more study and innovation are needed in the treatment of adult ALL.

https://doi.org/10.1016/j.htct.2020.09.067

PP 06

Case report: acute lymphoblastic leukemia with bone involvement

F. Yavaşoglu[1,*], C. Özdemir[2]

[1] *Afyonkarahisar Health Sciences University Hospital, Hematology Department, Afyonkarahisar, Turkey*
[2] *Afyonkarahisar Health Sciences University Hospital, Pathology Department, Afyonkarahisar, Turkey*

Objective: ALL is the most common type of acute leukemia in children, after AML in adults. At the time of diagnosis, there may be weakness due to anemia, signs of bleeding due to thrombocytopenia, signs of infection related to neutropenia. There may be bone pain due to expansion of the medullary cavity by the leukemic process. However, low back pain due to vertebral body collapse is one of the rare symptoms at the time of diagnosis. We are reporting an adult male patient with acute lymphoblastic leukemia who presented with paraparesis and multiple osteolytic lesions in lomber and thoracal vertebra.

Case report: A 63-year-old male patient had a complaint of back pain for 4 months, spreading to the left leg, accompanied by numbness and loss of strength. The patient without incontinence and painful walking was operated by the neurosurgery department. The patient with pancytopenia was consulted to us. In physical examination peripheral LAP was not detected and spleen size was determined as 16.5 cm by ultrasound. In the laboratory examination was remarkable for Hb: 9 g/dL, MCV: 79 fL, plt: $13*10^3$/uL, sedim 76 mm/h LDH: 1092 u/L. Other biochemical tests are normal. The L2 corpus pathological fracture biopsy result was determined as CD45+, Cd19+, Cd10+, TDT+, PAX 5+, c myc 30%+, Kİ 67% 50+, and was compatible with B lymphoblastic lymphoma infiltration. In bone marrow biopsy, 98% cellularıty, 99% blastic infiltration was detected. Blasts were CD34+, CD19+, PAX 5+, 80% CD10+, 80% TDT+, 50% CD22+, 30% CD20+, CD123+, respectively. Cytogenetics and fluorescence in situ hybridization (FISH) panel for ALL were normal; Philadelphia chromosome was not present. HyperCVAD chemotherapy was started for the patient who was diagnosed with B-ALL+ bone involvement. Intrathecal chemotherapies were given. After Hyper CVAD 2B chemotherapy, the patient was clapped due to sepsis.

Conclusion: Skeletal lesions can occur in a variety of malignant hematological conditions. In diseases such as multiple myeloma and waldenstrom macroglobulinemia, bone involvement is a common finding in diagnosis. Acute lymphoblastic leukemia and lymphomas can rarely present with osteolytic lesions and neurological involvement. ALL is a chemosensitive tumor, so chemotherapy is the main treatment option. In patients with bone involvement, radiotherapy and surgical resection are the other treatment options that can be applied.

https://doi.org/10.1016/j.htct.2020.09.068

CHRONIC LEUKEMIAS

PP 07

Chronic lymphocytic leukemia presenting as pulmonary involvement in an elderly patient: a case report

O. Ekinci[1,*], A. Dogan[2], M. Aslan[1], I. Aras[3], C. Demir[2]

[1] *Department of Hematology, Faculty of Medicine, Fırat University, Elazığ, Turkey*
[2] *Department of Hematology, Faculty of Medicine, Yüzüncü Yıl University, Van, Turkey*
[3] *Department of Pathology, Faculty of Medicine, Yüzüncü Yıl University, Van, Turkey*

Objective: A significant part of chronic lymphocytic leukemia (CLL) cases receive a diagnosis during the examination of routinely detected lymphocytosis or the investigation of the causes of lymphadenopathy or hepatosplenomegaly. Apart from these, CLL cases may rarely manifest as pulmonary involvement, which can include broncho-pulmonary infiltration, pleural effusion, or an endobronchial lesion. In the literature, cases presenting with CLL-associated broncho-pulmonary infiltration are extremely rare. Here, we present an elderly case with CLL presenting as pulmonary involvement.

Case report: An 82-year-old male patient presented to our hospital with progressive dyspnea, non-productive cough, and weight loss, which had persisted for one month. Chest X-ray radiography revealed opacity in the lower zone of the right lung. Contrast computed tomography (CT) of the chest visualized a soft-tissue density measuring approximately 74 mm × 75 mm in maximal axial dimensions in the inferior segment of the right middle lobe with surrounding ground-glass density and some air bronchogram localized near the medial hilum. Laboratory test results were as follows: hemoglobin level, 13.4 g/dL; total leukocyte count, 174×10^9/L; lymphocyte count, 148×10^9/L; platelet count, 192×10^9/L. Peripheral blood smear showed diffuse mature small lymphocytes and smudge cells. Peripheral blood flow cytometry revealed strong positivity for the CD5, CD20, CD19, and CD23 markers, consistent with CLL. A bronchoscopy was performed for diagnostic purposes and a transbronchial biopsy was taken from the lung parenchyma, and bronchoalveolar lavage (BAL) was performed. BAL cytology and microbiological tests were not diagnostic. On immunohistochemical examination of the parenchymal biopsy, neoplastic cells showed a CD20(+), CD5(+), CD23(+), CK(−), CK7(−), CK20(−), CD56(−), synaptophysin(−), chromogranin-A(−), CD3(−), TTF-1(−), Napsin A(−), and P63(−) staining pattern. The Ki67 proliferation index was 10%. The pathology clinic reported the result to be consistent with a chronic lymphocytic leukemia/small lymphoma infiltration. Cervical and abdominopelvic CT results of the patient were also considered and the CLL stage was determined as RAI 2

(moderate risk) and Binet B (moderate risk). However, in consideration of his weight loss and symptomatic extranodal involvement, a chemotherapy protocol with bendamustine and the CD20 antibody rituximab (BR) was initiated. BR treatment was administered every 28 days for up to 6 courses. The patient's symptoms demonstrated marked improvement after two cycles of chemotherapy. After a total of 4 courses, lymphocytosis in the peripheral blood showed complete remission and the involvement that had been visualized on direct chest radiography and CT showed nearly complete remission. After 6 cycles of chemotherapy, the patient was considered in complete remission and follow-up was started.

Conclusion: Pulmonary complications and involvement in CLL typically occur after the diagnosis, in the course of the disease, while there are cases who present as pulmonary involvement (broncho-pulmonary infiltrates, hilar and mediastinal lymphadenopathies, pleural effusion, etc.), although much less frequently. Pulmonary involvement must be considered in patients diagnosed with CLL who have symptoms associated with the respiratory system. Particularly in patients diagnosed with broncho-pulmonary lesions based on peripheral blood analysis or lymph node biopsy, CLL-associated involvement should certainly be included in the differential diagnosis when the most common causes are excluded.

https://doi.org/10.1016/j.htct.2020.09.069

PP 08

Frequency of brucellosis and hepatitis b virus seropositivity in patients with chronic lymphocytic leukemia

O. Ekinci[1,*], S. Ebinc[2], A. Dogan[2], C. Demir[2]

[1] *Department of Hematology, Faculty of Medicine, Fırat University, Elazığ, Turkey*
[2] *Department of Hematology, Faculty of Medicine, Yüzüncü Yıl University, Van, Turkey*

Objective: Chronic lymphocytic leukemia (CLL) is a disease characterized by an increase in mature neoplastic lymphocytes in tissues with a lymphoid component, such as peripheral blood, bone marrow, lymph node, spleen, and liver. Patients with CLL show defective cellular and humoral immune responses. Although such immune failure is known to be associated with an increase in the frequency of particularly gram-positive and -negative bacterial infections, data on the increase in the frequency of zoonoses such as brucellosis and viral infections such as the hepatitis B virus (HBV) are inconclusive. This study aims to investigate the frequency of brucellosis and HBV seropositivity in patients diagnosed with CLL.

Methodology: Patients followed-up for CLL between 2005 and 2019 were evaluated. Results of patients who were tested for HBsAg and anti-HBs serology using the ELISA assay and for Brucellosis using the serum (Wright) agglutination test were recorded. Demographic data and laboratory results of all patients included in the study were evaluated.

Results: This study included 188 patients diagnosed with CLL, of whom 56 (29.8%) were female and 132 (70.2%) were male. The median age was 62 (range: 33–92) years. Complete blood count parameters at diagnosis were as follows: median leukocyte count, 54.4×10^9/L; median lymphocyte count, 42.3×10^9/L; median platelet count, 148×10^9/L; median hemoglobin level, 13.4 g/dL. HBsAg and anti-HBs were tested in 142 patients. A total of 16 (11.27%) patients were HBsAg-positive; with 5 (3.52%) positive cases in females and 11 (7.75%) in males. A total of 105 (73.95%) patients were anti-HBs-positive; with 32 (22.54%) positive cases in females and 73 (51.41%) in males. The Wright agglutination test was performed on 82 patients. A total of 4 (4.88%) patients reacted positively to the Wright test; with 3 (3.66%) positive cases in females and 1 (1.22%) in males.

Conclusion: The immune system disorders that develop due to the nature of CLL make the patient more vulnerable to infections. Accordingly, many patients lose their lives due to a clinical picture of severe infection. Based on the present study, compared with the epidemiological studies conducted in the same region; the rate of positive reactions to the Wright agglutination test was consistent with the literature data; however, a higher rate of HBsAg positivity was determined. This may be linked to the increase in the risk of HBV transmission due to the immune defect caused by CLL or the immunosuppressive picture induced by the medication used in the treatment, or viral reactivation.

https://doi.org/10.1016/j.htct.2020.09.070

PP 09

Epidemiological spectrum and diagnosis patterns of hematological malignancies in the republic of moldova

V. Musteata[1,*], L. Catrinici[2], V. Stratan[2], L. Musteata[1]

[1] *State University of Medicine and Pharmacy, Chișinău, Republic of Moldova*
[2] *Institute of Oncology, Iași, Romania*

Objective: Hematological malignancies (HM) are the relatively frequent nosological entities within the structure of morbidity by malignant tumors, exhibiting a severe evolution, restrained prognosis and negative socio-economic impact in the advanced stages and phases. The objective of the study was to analyze the incidence and diagnosis patterns of HM in Moldova.

Methodology: The following research methods were used: epidemiological, descriptive statistics, clinico-analytic. The type of HM was identified according to the Revised 2017 WHO Classification of Tumours of Hematopoietic and Lymphoid Tissues. The diagnosis was proved by histopathological, cytological, cytogenetic, molecular and immunophenotyping examinations. The quantitative real-time PCR was used in order to assess the expression of BCR-ABL p210 and p190 transcripts for CML diagnosis. The quantitative detection of JAK2 V617F mutation served as a major criterion for diagnosis of polycythemia vera (PV) and primary myelofibrosis (PMF).

Results: The number of newly diagnosed and followed-up patients with HM at the Institute of Oncology in 2016, 2017, 2018 and 2019 amounted respectively to 725, 802, 613 and 628, the incidence (new cases per 100,000 population) being 17.6,