was discharged on day 10 of treatment and her steroid therapy was tapered and discontinued by day 21. At follow-up on day 21, the patient's hemoglobin had increased to 13.9 g/dL, and no erythrocyte agglutination was observed on peripheral smear. **Conclusion:** This case highlights a rare pediatric presentation of cold agglutinin disease associated with COVID-19 infection, complicated by severe hemolysis and lobar pneumonia. Early recognition and a multidisciplinary approach including corticosteroids and supportive care played a critical role in the patient's favorable outcome.

https://doi.org/10.1016/j.htct.2025.106172

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CASE REPORT: WIDESPREAD BONE INVOLVEMENT AFTER ALLOGENEIC TRANSPLANTATION IN A PATIENT WITH BIPHENOTYPIC ACUTE LEUKEMIA

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Objective: Biphenotypic acute leukemia (BAL) is a rare hematologic malignancy characterized by blasts expressing both myeloid and lymphoid markers, and is generally associated with poor prognosis. The advancement of cytochemical and immunophenotypic diagnostic techniques has improved recognition of such rare leukemias, which account for approximately 5% of adult acute leukemias. Despite recent developments, challenges remain in the diagnosis and treatment of BAL. The European Group for the Immunological Characterization of Leukemias (EGIL) and the World Health Organization (WHO) scoring systems, primarily based on flow cytometry, are widely used for diagnosis. Due to disease heterogeneity, there is no standardized chemotherapy for BAL; however, because of the high relapse risk, allo-HSCT is recommended as soon as remission is achieved. Following allo-HSCT, extramedullary relapse occurs in 3–12% of acute leukemia patients. In this study, we present a case of BAL with isolated widespread bone involvement occurring after allo-HSCT. **Case report:** A 33-year-old male patient was diagnosed with B/Myeloid biphenotypic acute leukemia in January 2024. Flow cytometric evaluation showed aberrant myeloid markers, while cytogenetic analysis did not reveal FLT3-ITD, t(8;21), t(9;22), or inv(16) mutations. He received induction therapy with 3+7 Idarubicin & Cytarabine, which failed to achieve remission. FLAG-Mito reinduction therapy was administered, but bone marrow evaluation still showed 8% blasts, and the patient was considered refractory. On March 24, 2024, he underwent allo-HSCT from an HLA-matched sibling donor after a myeloablative conditioning regimen with Fludarabine and Treosulfan. Post-transplant chimerism was 96%, and remission was achieved. In December 2024, the patient presented with left knee pain. Imaging revealed a bone lesion in the proximal left tibia, and biopsy confirmed BAL relapse. Bone marrow biopsy was normal. PET-CT revealed widespread skeletal involvement, including bilateral humeri, right clavicle, right scapula, sternum, L2 vertebra, left sixth rib, sacrum, pelvic bones, right femur, and proximal bilateral tibiae. Due to severe pain, palliative radiotherapy (2000 cGy to the left tibia and 800 cGy to the left sixth rib) was administered. As there was no bone marrow involvement, the patient was started on Decitabine (20 mg/m^2/day for 5 days) combined with Venetoclax (200 mg for 14 days per cycle, reduced due to concomitant posaconazole use). After four cycles, PET-CT demonstrated complete remission. Donor lymphocyte infusions (DLI) were administered in four doses (2.42×10^7/kg total). The patient remains in remission with mild chronic GVHD (grade 1–2). **Discussion:** Biphenotypic acute leukemia is a rare subtype of acute leukemia, most commonly presenting with a B/Myeloid phenotype. High-dose chemotherapy protocols derived from ALL or AML regimens are generally used, and allo-HSCT is recommended for patients achieving remission. Extramedullary relapse after allo-HSCT has been reported with variable incidence, most often accompanied by bone marrow relapse. Isolated extramedullary relapse without marrow involvement is rare. A European multicenter study reported isolated extramedullary relapse in 0.65% of cases after allo-HSCT, while another study of 287 patients identified such relapse in approximately 4%, most frequently in the CNS, skin, bone, pelvis, and breast. In our case, the patient relapsed nine months after allo-HSCT with widespread isolated bone involvement. Treatment with hypomethylating agent Decitabine combined with Venetoclax achieved remission, and subsequent DLI helped maintain disease control. There is limited literature regarding isolated bone relapse in BAL after allo-HSCT, highlighting the uniqueness of this case. **Conclusion:** Biphenotypic acute leukemia is a rare disease with poor prognosis and no standardized therapy. Treatment approaches usually involve high-dose chemotherapy regimens for ALL or AML followed by allo-HSCT. Although extramedullary relapse after allo-HSCT is known, isolated widespread bone involvement is extremely rare. Our case demonstrates successful treatment with Decitabine and Venetoclax, followed by donor lymphocyte infusions.

https://doi.org/10.1016/j.htct.2025.106173

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"Kappa Light-Chain Multiple Myeloma Without Serum M-Spike: A Diagnostic and Therapeutic Challenge in an Elderly Patient"

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Introduction: Light-chain multiple myeloma (LCMM) accounts for a subset of myeloma cases characterized by the absence of an M-protein spike on serum protein electrophoresis. This diagnostic challenge often delays recognition and treatment. We present the case of a 75-year-old woman with kappa-dominant LCMM, where conventional marrow and serum

studies were inconclusive, yet clinical and imaging findings confirmed active disease. **Methods:** A comprehensive diagnostic evaluation was performed, including hematology and biochemistry profiles, serum protein electrophoresis, serum and urine immunofixation, serum free light chain (sFLC) quantification, bone marrow aspiration and biopsy with immunohistochemistry, and 18F-FDG PET-CT imaging. **Results:** Gülüşen Kellesibüyük, a 75-year-old female, presented with fatigue, anemia, and back pain. Laboratory evaluation revealed hemoglobin of 9.7 g/dL, elevated inflammatory markers, and preserved renal and calcium levels. Serum protein electrophoresis demonstrated no monoclonal spike. Immunofixation of urine identified monoclonal kappa light chains. sFLC testing showed markedly increased kappa levels (121–270 mg/L) with a pathological κ/λ ratio between 3.9 and 4.2. Bone marrow aspirates revealed only 2–3% plasma cells with polytypic staining, and biopsies were normocellular without evidence of clonal infiltration. Despite these inconclusive marrow results, PET-CT demonstrated a metabolically active lytic lesion in the L4 vertebra (SUVmax 11.4) and multiple punctate cranial lytic lesions. The combination of anemia, abnormal light chain ratio, and PET-CT–confirmed bone lesions established the diagnosis of active LCMM. **Discussion:** This case emphasizes the diagnostic complexity of LCMM, where reliance solely on serum electrophoresis or marrow histology may be misleading. The absence of an M spike, coupled with non-diagnostic marrow sampling, initially obscured the diagnosis. However, integration of sFLC analysis, urine immunofixation, and advanced imaging confirmed the presence of active myeloma. Elderly, transplant-ineligible patients such as this one benefit from modern therapeutic approaches that combine efficacy with tolerability. Triplet regimens including daratumumab with lenalidomide and dexamethasone or reduced-intensity bortezomib-based protocols are recommended as first-line options. For patients with limited access to hospital care, oral regimens may be considered, though efficacy is comparatively lower, Türkiye. **Conclusion:** The case of demonstrates that light-chain multiple myeloma can be present despite normal serum electrophoresis and non-clonal marrow findings. Comprehensive evaluation with free light chain assays, urine studies, and PET-CT is essential to avoid underdiagnosis. This case highlights the importance of applying full diagnostic criteria to detect atypical myeloma presentations early, ensuring timely initiation of therapy and improved patient outcomes.

https://doi.org/10.1016/j.htct.2025.106174

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Early-Stage Nodular Lymphocyte-Predominant Hodgkin Lymphoma (NLPHL) in a Young Woman: A Rare Subtype Managed Without Chemotherapy

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Introduction: Nodular lymphocyte-predominant Hodgkin lymphoma (NLPHL) is a rare subtype of Hodgkin lymphoma, comprising approximately 5–7% of cases. Unlike classical HL, NLPHL is characterized by CD20-positive "popcorn" cells (LP cells), lacks Epstein-Barr virus association, and tends to follow an indolent course. Accurate diagnosis is critical, as the therapeutic approach differs substantially. We report an early-stage NLPHL case in a young woman managed successfully without chemotherapy, emphasizing the value of histopathological precision and risk-adapted therapy. **Methods:** A 33-year-old woman presented with a painless cervical swelling. Physical examination revealed enlarged left cervical and supraclavicular lymph nodes. She had no B symptoms such as fever, night sweats, or weight loss. Blood counts and biochemistry were within normal limits. An excisional biopsy of a lymph node was performed, followed by immunohistochemistry and whole-body 18F-FDG PET-CT for staging. Bone marrow aspiration and biopsy were also conducted to rule out marrow involvement. **Results:** Histopathological examination demonstrated nodular architecture containing scattered lymphocyte-predominant (LP) cells. Immunophenotyping revealed strong CD20 and Pax5 expression, with negativity for CD3 and CD15. CD21 staining highlighted an expanded follicular dendritic cell meshwork, confirming the diagnosis of NLPHL. PET-CT showed FDG-avid lymph nodes localized to the left cervical and supraclavicular regions, with a maximum SUV of 27.9. No pathological uptake was seen in the mediastinum, abdomen, bones, or spleen. Bone marrow biopsy was normocellular without evidence of infiltration. The disease was staged as Stage IA (non-bulky), CD20-positive NLPHL. The patient was treated with rituximab monotherapy (375 mg/m^2 weekly for 4 doses), followed by involved-field radiotherapy (30 Gy) to the involved nodal regions. Given her age and reproductive status, fertility preservation was discussed before initiating treatment. The plan aimed to minimize long-term toxicity while maintaining curative potential. **Discussion:** This case illustrates several important themes. First, accurate histological subtyping allowed for a deviation from standard chemotherapy-based HL protocols. Second, the use of rituximab and radiotherapy alone is an emerging and evidence-supported strategy for early-stage NLPHL, particularly in CD20-positive, non-bulky cases. Third, the patient's demographic—young and female—makes chemotherapy-free management especially attractive given concerns about fertility and late effects. Finally, the case has strong educational value, highlighting the need to distinguish NLPHL from classical HL and indolent B-cell lymphomas, both histologically and metabolically. **Conclusion:** This case demonstrates how a rare Hodgkin lymphoma subtype can be successfully managed with a chemotherapy-free, targeted approach. It reinforces the importance of accurate subtyping and risk-adapted treatment in delivering personalized care, especially in young patients where fertility and quality of life are key considerations

https://doi.org/10.1016/j.htct.2025.106175