Title

When a Fall Uncovered More Than a Fracture: Incidental CLL in a Geriatric Patient

Authors

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Introduction

Chronic lymphocytic leukemia (CLL) is one of the most common leukemias in adults in Western countries with median age of diagnosis approximately 70 years (1). It frequently has an indolent course with diagnosis made incidentally in asymptomatic patients through routine laboratory testing or during treatment for other conditions. It is characterized by clonal proliferation of mature B lymphocytes with expression of surface markers such as CD5, CD19, CD23, and either kappa or lambda light chain restriction (2). Leukocytosis is common after major surgeries due to physiologic stress or inflammation but persistent or unexplained leukocytosis in absence of clear sources of infection should prompt further investigation for alternative causes including hematologic malignancies.

Case Presentation

A 74-year-old female with past medical history of hypothyroidism, anxiety disorder, osteoporosis, chronic speech impairment, and body tremors was admitted following a mechanical fall. Imaging revealed a subcapital fracture of the right hip, and the patient subsequently underwent right hip arthroplasty. Postoperatively, she was started on aspirin 81 mg twice daily for 35 days for deep vein thrombosis (DVT) prophylaxis. During her hospital course, the patient developed persistent leukocytosis, initially presumed to be reactive. However, white blood cell (WBC) counts remained elevated

(16,000–18,000/μL), and automated differentials showed 19–30% abnormal lymphocytes. Infectious workup—including urinalysis, viral panel, and chest radiography—was negative. Flow cytometry was performed per pathology recommendation and revealed findings diagnostic of CLL, with the following immunophenotype: CD5+, CD19+, CD20+, CD23+, CD200+, CD38+, CD81-, and kappa light chain restriction. The absolute count of CLL cells was 6.0×10^3/μL. The patient had no prior history of malignancy. She was clinically stable, asymptomatic from a hematologic perspective, and was referred for outpatient hematology follow-up.

Discussion

This case highlights the incidental diagnosis of CLL in setting of postoperative leukocytosis in an elderly patient. While leukocytosis in perioperative period is common, particularly after orthopedic surgery, persistent lymphocytosis with abnormal morphology warrants evaluation for hematology malignancies (3). The immunophenotype observed on flow cytometry confirmed a typical presentation of CLL. The presence of CD38 positivity could indicate potentially more aggressive form of disease, however further prognostic workup—including FISH and IGHV mutation status—would be needed for risk stratification (4). This case emphasizes the importance of considering alternative causes of leukocytosis when infectious postoperative causes have been excluded. According to current guidelines, asymptomatic CLL patients do not require immediate treatment and are instead managed with active surveillance, with therapy initiated only upon evidence of disease progression or the development of CLL-related symptoms (1). In elderly patients, persistent postoperative leukocytosis should not be presumed reactive without thorough evaluation. This case illustrates how incidental findings can lead to early diagnosis of CLL, which is crucial for appropriate monitoring and management. Clinicians should maintain a broad differential diagnosis, and flow

cytometry should be considered when abnormal lymphocytes are present in the absence of infection.

References

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