Leukemia Presenting As Large Splenic Infarct

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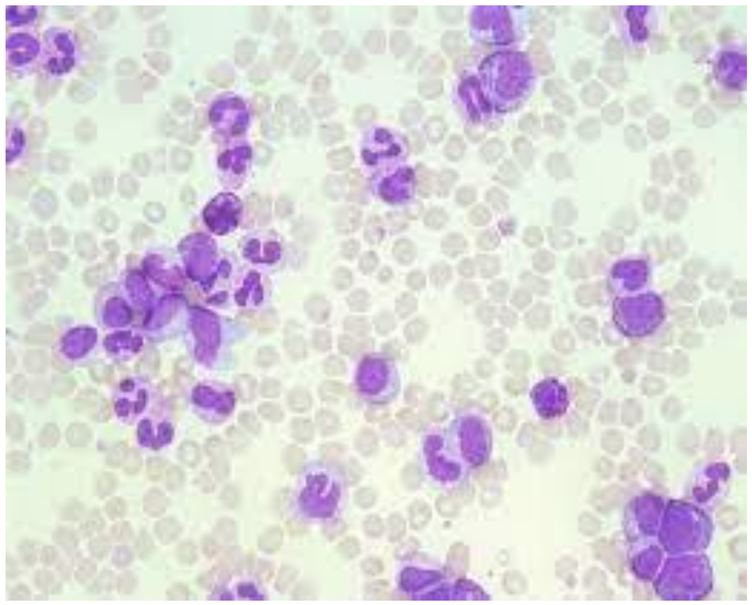
Introduction

Chronic myeloid leukemia is thought to be one of the most common leukemias found in adults. Accounting for approximately 15-20% of all leukemias. About 85% of all diagnoses are made in the chronic phase of the disease course. It is most diagnosed or suspected when abnormal results are found on routine lab work including complete blood count testing. About 50% of diagnoses are made when a patient is asymptomatic. Among patients who are 'symptomatic' they generally only present with vague symptoms such as fatigue, malaise, weight loss, excess sweating, abdominal 'fullness'. Rarely is this disease diagnosed in the other phases including accelerated (where neutrophil differentiation is impaired) or blast crisis (resembling acute leukemia where cells proliferate in an uncontrolled manner).



Chronic Myelogenous Leukemia
Chronic phase

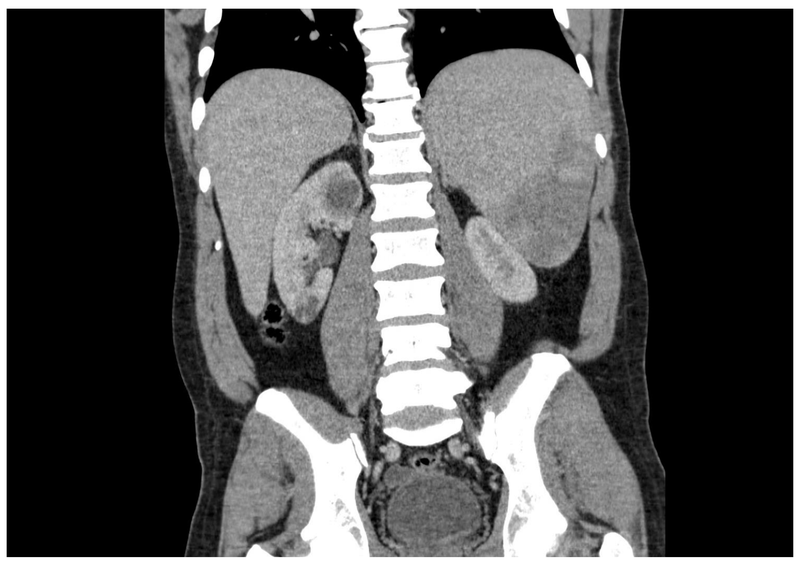
Case

45-year-old male with no past medical history presented to outpatient office with complaints of left sided flank pain with radiation to left groin and intermittent hematuria over past 2 weeks. Patient reports that his father had history of nephrolithiasis and had similar pain and symptoms at patient's age. Patient did endorse increased fatigue and difficultly with sleep over the past 2 months which he attributed to a new job. His physical exam was notable for mild left sided abdominal tenderness without costovertebral angle tenderness. Urinalysis was performed; notable for +2 occult blood. Complete Blood Count testing notable for Leukocytosis (WBC 19.9) with 1 metamyelocyte, 13 myelocyte, Anemia (Hgb 11.3), and thrombocytopenia (125). Lab work concerning for myeloproliferative disorder

In the emergency room patient was evaluated and found to have worsening Leukocytosis (WBC 80.9) with 11 metamyelocyte, 16 myelocyte, 4 promyelocytes. CT Abdomen/Pelvis with IV contrast notable for Splenomegaly 17.5cm x 11.7cm and area of hypoattenuation 7x7cm concerning for splenic infarct. Patient was admitted for Splenic Infarct and Myeloproliferative Disorder. Initially patient was treated with hydroxyurea, allopurinol, and warfarin whilst patient had testing performed including Peripheral Blood Smear, BCR/ABL quantification, and bone marrow biopsy. Patient was discharged from hospital after resolution of leukocytosis and abdominal pain. Testing confirmed CML (with Ph chromosome 9:22 translocation, -JAK2 mutation), and trisomy 8. Patient was started on 2nd generation tyrosine kinase inhibitor (Dasatinib) with routine outpatient monitoring. Hypercoagulability testing was unremarkable and warfarin was discontinued after resolution of splenomegaly on repeat ultrasound imaging. Patient was continued on tyrosine kinase inhibitor maintenance therapy with normalization of abnormal labs and resolution of symptoms

Discussion

Although Chronic Myeloid Leukemia is one of the most common leukemias in the United States its presentation can vary greatly between asymptomatic (silent) or developing into catastrophic complications for our patients. It is important to consider malignancy when our patient's present with vague or lingering symptoms. Sometimes patient develop symptoms that are nondescript and can be attributed to other causes (such as nephrolithiasis for this patient). It is important to have a wide differential when approaching patient care in the outpatient setting. Early intervention is important in CML to help prevent complications including spontaneous bleeding or thromboses which our patient experienced in the form of large splenic infarct and spontaneous hematuria.



Splenomegaly
With acute ischemic infarct