A Case of Venous Thromboembolism in a Patient with Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma

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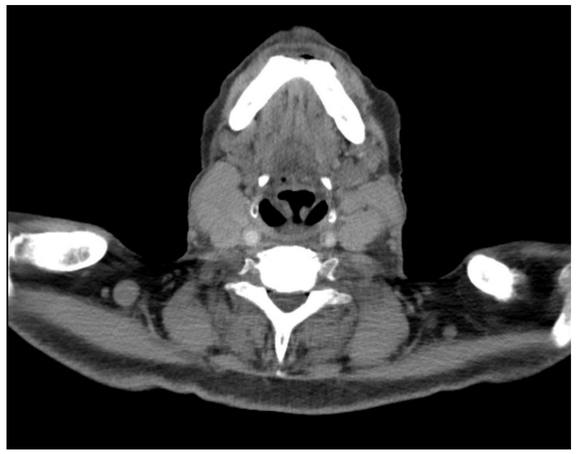
INTRODUCTION:

Chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL), like many other hematologic malignancies, is associated with an increased risk of venous thromboembolism (VTE). A recent study in 2018 quantifying VTEs in CLL/SLL demonstrated an incidence of approximately 8.2 per 1000 person-years. Individuals with secondary cancers or more aggressive primary disease demonstrated a higher incidence (2). Here, we present the case of an individual with relatively indolent CLL/SLL, who started developing progressive B-symptoms, found to have acute subclavian VTE.

CASE PRESENTATION:

An 88-year-old man with history of prostate cancer status-post radiation therapy, bladder cancer status-post resection, hypertension, diabetes, and CLL/SLL presented with complaints of left upper extremity swelling and pain. The swelling began insidiously, worsening until presentation. He denied shortness of breath, chest pain, and nausea/vomiting upon presentation, but endorsed worsening fatigue as well as subjective fevers. Physical exam was notable for bilateral cervical/axillary lymphadenopathy as well as swelling and erythema of the left upper extremity. An upper extremity doppler ultrasound revealed an acute VTE of the left subclavian vein. He was admitted and initiated on therapeutic enoxaparin with resolution in both swelling and pain over the next several days.

Figure 1.



Significant bilateral cervical lymphadenopathy

Figure 2.

Significant bilateral axillary lymphadenopathy

DISCUSSION:

The incidence of VTE in CLL/SLL is approximately equal to that of other hematologic malignancies (2). Cancers as well as their treatments are thought to promote a pro-inflammatory state with elevated acute-phase reactants and various prothrombotic factors. This, combined with hemodynamic compromise and patient deconditioning leading to augmented blood stasis contributes to the overall development of a hypercoagulable state (1).

This patient was hypercoagulable from his CLL/SLL and had stasis caused by his enlarging lymphoma. This coupled with inflammation from his UTI forms a complete Virchow's triad which contributed to the overall development of his subclavian thrombus.

The American Society of Clinical Oncology (ASCO) guidelines on VTE prophylaxis and treatment in patients with cancer supports the use of low molecular weight heparins (LMWH) as the primary form of anticoagulation in this subset of patients based on multiple studies demonstrating decreased mortality, risk of bleeding, and re-thrombosis. Of note, rivaroxaban and edoxaban were added as alternative VTE treatment options, albeit with increased risk of bleeding (3).

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