TACSM Abstract - Case Study

Multiple Acute Deep Vein Thrombosis

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ABSTRACT

CASE HISTORY: The patient was a 49-year-old male who presented to the clinic for further evaluation right calf swelling and pain. He reported that the pain began approximately three weeks before the visit while in physical therapy for ACL knee surgery rehab. The patient recalls performing a lateral stepping exercise when he experienced a sharp pain in his groin that radiated down his leg to his toes on the right side. The pain in his groin eventually subsided but continued experiencing aching pains and swelling in the right calf. He initially had difficulty walking on his right leg but wearing a compression sleeve alleviated the pain and he was able to resume regular activities of daily living (ADLs). The swelling continued to persist, where at his physical therapy clinic they encouraged him to partake in rest, ice, compression, and elevation (RICE), but no improvement of swelling has occurred. He previously reported past family history of recurrent leg swelling and Congestive Heart Failure (CHF). **PHYSICAL EXAM**: Further investigation of patient reported pain and swelling of the right lower extremity found the right calf with firm edema and tenderness to palpation. Patient has full passive Range of Motion (ROM) of hips, knees and ankles. Thomas Test was negative bilaterally. Upon palpation of the right groin, an indirect hernia defect was confirmed. Strength of both right and left legs reported 5/5 on manual muscle testing with full ROM against gravity and maximal resistance. **DIFFERENTIAL DIAGNOSES**: Multiple Acute Deep Vein Thrombosis (DVT); Edema; Varicose Veins; Pulmonary Embolism (PE); Venous Ulcer. **TESTS & RESULTS**: Patient underwent an Extremity Venous Duplex test where seven acute DVT were found on the right femoral, popliteal, gastrocnemius, posterior tibial and peroneal veins. Multiple panels of blood work were analyzed and the patient had borderline low Blood Urea Nitrogen (BUN) and Creatine levels and Protime-International Normalized Ratio results of Prolonged Partial Thromboplastin Time noted. Rivaroxaban (Xarleto) 15 mg tablets were prescribed to patient twice a day for 21 days, then continue 20 mg with food daily. **FINAL DIAGNOSIS**: Multiple Acute Deep Vein Thrombosis. **DISCUSSION**: Deep Vein Thrombosis occurs when a blood clot (thrombus) forms in one or more deep veins, usually in the lower extremities. Blood clots can dislodge, travel to the lungs and cause Pulmonary Embolism. DVT is common in those who are overweight, smoke, have cancer, recently had lower extremity surgery, genetically predisposed, or spend long periods of time sitting. The incidence rate of DVT after knee surgery is 41.6%, after knee replacement surgery, 44-58% and after hip replacement surgery, 23-33%. Prevention and treatment vary per case, and can be managed with prescribed blood thinners, catheter-directed thrombolysis, inferior vena cava filter replacement and consistent exercise. **OUTCOME OF THE CASE**: The patient was prescribed Xarleto, a blood thinner, daily along with four weeks of supine/prone exercises focusing on upper body and abdominal movements. The patient will return after the allotted time to assess the DVT symptoms and reevaluate return to activity. **RETURN TO ACTIVITY AND FURTHER FOLLOW-UP**: Return to activity recommendations were made based on the anticoagulation initiation date as follow: 1-3 weeks gradual return to ADLs, at 4 weeks, perform non-weight bearing exercises, 5 weeks, perform non-impact loading exercises, and at 6 weeks, start low impact loading exercises. Follow-up with doctor in 3-4 weeks to reevaluate return to activity protocol.