

CASE OF THE WEEK

LIFE WINS

TOPIC : AN UNUSUAL PRESENTATION OF A SWOLLEN ARM- "EFFORT THROMBOSIS"



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Upper limb deep vein thrombosis (DVT) is a less common phenomenon than lower limb DVT. Repeated trauma secondary to sport- or job-related arm movements and positions has been recognized as the predisposing factor for upper limb DVT. We describe a 58-year-old admitted with swelling and pain in his left upper limb. Venous duplex ultrasound confirmed the presence of axillary vein thrombosis. Coagulation studies for secondary thrombosis were unremarkable. The patient was treated with full anticoagulation using low molecular weight heparin and Novel Oral Anti-Coagulants (NOAC).

Lower limb deep vein thrombosis (DVT) is a common and well-described condition which has recently grown in public awareness. The risk factors for lower limb DVT arise from the underlying components of Virchow's triad: venous stasis, hypercoagulability, and injury to the intima of veins.

Upper limb thrombosis, involving the axillary or subclavian vein, is a less common phenomenon. This condition is subject to the same risk factors as the formation of lower limb DVT. Another way of assessing the risk factors for upper limb DVT is by considering endogenous (e.g., thrombophilia and pregnancy) and exogenous (e.g., external compression of the vein by the cervical rib or a solid tumor) causes, although it may occur spontaneously. Our patient had left lower limb amputation done and was using crutches for walking. Physical examination revealed erythema, heat, swelling, and tenderness localized to the ulna border of his left arm (Figure 1). There was no systemic feature of illness.

Laboratory tests including routine full blood count, renal and liver profiles, inflammatory markers, thrombophilia test, and viral screen were unremarkable, with the exception of elevated D-dimer.

Venous duplex ultrasound of his left arm demonstrated compressible radial, ulnar, and brachial veins with decreased compressibility in the left axillary vein and confirmed the presence of thrombosis extending throughout the length of the vessel which was confirmed with CT Venography.

We treated the patient with full anticoagulation using subcutaneous low molecular weight heparin and oral warfarin, and his signs and symptoms gradually resolved over the next few days.

The relatively fixed position of the axillo-subclavian vein in the thoracic inlet/outlet predisposes it to repeated trauma with arm movements, leading to the compression of the vein in the costo-clavicular space. The axillo-subclavian compression between the clavicle and the first rib may also be exaggerated with frequent strenuous arm movements (e.g., tennis and body building) or when the upper extremity is in particular positions such as the rigid military style of sitting with the back straight and the shoulders placed posteriorly and inferiorly (e.g., sitting at a computer desk).

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