PAGET SCHROETTER SYNDROME

(A Case Report)

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Introduction

Paget Schroetter syndrome (Synonyms - Paget von Schroetter syndrome, effort thrombosis) is a condition similar to a thoracic outlet syndrome, in which a thrombus forms in the axillary vein after strenuous exercise [1]. A case developing this syndrome after a vigorous session of volley ball is reported.

CASE REPORT

A 27-year-old serving soldier presented with painful swelling of right upper arm of one day duration. He gave history of extensive practice sessions of volley ball in preparation for a tournament over the preceding 2 weeks and an especially vigorous game a day before the onset of the symptoms. He had been in perfect health before this illness. General physical and systemic examination were entirely normal. Local examination showed diffuse tender swelling of right arm and forearm with induration and dusky blue discoloration over the medial aspect of the arm. The brachial and radial pulsations were normal and there was no neurological deficit. With the clinical diagnosis of right axillary vein thrombosis he was started on anticoagulation therapy with intravenous heparin. Venography done on the next day showed irregularity in distal cephalic, axillary and subclavian veins suggestive of a recanalizing thrombus (Fig 1). Full blood count including platelet count, biochemical profile and chest radiograph were all normal. He was subsequently maintained on oral anticoagulation with warfarin. The swelling and pain improved over the following week and he became asymptomatic after 3 weeks.

Discussion

Axillary vein thrombosis (AVT) as also thrombosis of other upper extremity veins is uncommon. It is usually seen as a part of the 'Thoracic outlet syndrome' in which neurovascular obstruction occurs at the thoracic outlet in various conditions such as cervical ribs, fascial bands, and malignant

lymph nodes [2]. Other causes include insertion of subclavian venous catheters, pacemaker implants and clotting abnormalities. A rare cause is the vigorous use of the arm, when it is called the Paget Schroetter syndrome. This occurs due to damage to the vein caused by excessive movement between the clavicle and the first rib. One of the earliest examples of this syndrome in the literature is probably that of King Henry of Navarre suffering from it following an effective use of his sword in the battle of Ivry in 1590 [3]. Cases of AVT have also been reported due to radiation fibrosis in patients with carcinoma of the breast treated by radiotherapy [4], and secondary to vascular compression in the axilla following use of vest restraints [5]. AVT manifests as painful oedema and skin discoloration in the shoulder and upper arm.

Fig. 1 : Right upper limb venogram showing irregularity in axillary and subclavian veins suggestive of a recanalizing thrombus.

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As a collateral circulation develops, the symptoms subside. Contrast venography is the gold standard in the diagnosis. Recently real time and duplex Doppler sonography and colour Doppler sonography are gaining acceptance as these use no contrast material and because of their non-invasive nature, portability and repeatability for follow-up studies [6]. Although full recovery often takes place, a substantial proportion of cases will be left with residual painful swelling. The extent of thrombosis can be limited if anticoagulation therapy is given early. Thrombolytic therapy is also highly effective in dissolving the thrombus.

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