BILATERAL AXILLARY VEIN THROMBOSIS

by

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UPPER limb thrombosis accounts for only one per cent of all deep vein thromboses.\(^1\) This may be because there are fewer valves in the arm veins, along with increased fibrinolytic activity and decreased hydrostatic pressure.\(^2\)

The aetiology is primary and secondary. The primary cause is thought to be mechanical due to anatomical factors in that the axillary vein passes through a triangle composed of scalenus anterior posteriorly, the clavicle and subclavian muscle anteriorly and the first rib inferiorly. Excessive movement of shoulder and upper arm distorts the vein and intimal damage results in subsequent thrombosis. The condition has been described in weight lifters and long distance lorry drivers. Secondary causes are subsequent to fracture dislocations of clavicle, congestive heart failure, malignancy and the introduction of catheters or irritant substances into the arm veins. The condition is usually unilateral but occurs bilaterally in 14 per cent of cases. The common presentations are pain in the axilla and/or upper arm fatigability brought on by activity which had previously caused no discomfort. The presenting signs include oedema of the arm, evidence of venous collaterals and palpation of a venous cord in the axilla.

CASE REPORT

Mr. W. H. aged 52 presented in the surgery complaining of pain and a feeling of fullness in his left armpit. The pain began after a period of exertion and had been present for two days. It was a continuous dull throb aggravated by shoulder movement. The pain radiated into the upper arm.

He was a non smoker and an active athletic man running upwards of sixty miles per week. He also ran several marathons each year. There was no history of recent trauma or chest symptoms and his weight was stable. Two years previously the patient had complained of similar symptoms in his right axilla. At that time the symptoms had been present for two weeks and his lower arm was swollen. A diagnosis of right axillary vein thrombosis had then been made and his symptoms resolved some weeks after commencement of anticoagulation therapy.

On examination, a firm tender cord three inches long and half an inch in diameter was palpable in the left axilla. Multiple tortuous and dilated collaterals were observed in both pectoral areas radiating out over his deltoids. The collaterals were equally prominent on both sides. No oedema was detected in the upper limbs.

He was referred to hospital and venograms (Figure) confirmed the diagnosis. The erythrocytic sedimentation rate, full blood picture, chest radiograph and pancreatic scan were all normal.

The patient was given anticoagulation therapy with heparin for several days and subsequently warfarin. The pain settled immediately, full arm function returned and the axillary venous cord was impalpable one month later. His collateral venous channels have persisted in both pectoral and deltoid areas on both sides.
DISCUSSION

This patient presented with a left axillary vein thrombosis which had been preceded two years previously by a right axillary vein thrombosis. The aetiology was primary. This rare condition could be postulated to have occurred as a result of repeated flexion and extension of the upper limb at the shoulder joint during long distance running. This could have caused damage to the axillary vein's intima with subsequent thrombosis.

The patient refused to abandon marathon running as this had become an integral part of his lifestyle. The long term prognosis is debatable but hopefully since the axillary veins are occluded and a good bilateral collateral circulation has developed further local irritation resulting from his sport should not cause disturbance of circulation which is now dependant on collateral channels.

SUMMARY

A marathon runner initially presented with a right axillary vein thrombosis. Two years later he developed a similar lesion on the left side. No underlying pathology was discovered, and the aetiology was thought to be mechanical subsequent to repeated flexion/extension at the shoulder joint while running. He has developed an adequate collateral venous circulation on both sides and remains symptom free.

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