

# Paget – Von Schrotter Syndrome

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## Abstract

Paget Von – Schrotter Syndrome is a rare form of UEDVT, also called as effort induced thrombosis. This case is rare presentation of UEDVT in 45 year old military man caused due to repetitive and strenuous activity of upper extremity.

**Keyword : UEDVT (Upper Extremity Deep Vein Thrombosis)**

## Introduction

Paget–Von–Schrotter syndrome described by Sir James Paget in 1875, is the spontaneous thrombosis of the veins draining the upper extremity.<sup>1</sup> Von-Schrotter, in 1884 postulated that this syndrome resulted from occlusive thrombosis of axillary and subclavian veins.<sup>2</sup> This syndrome is also known as “Effort Induced Thrombosis” and has been reported after vigorous activity.<sup>3</sup> Among patients with effort induced thrombosis with subclavian vein stenosis, the thrombosis occurs in dominant arm in 80% of cases<sup>4</sup>

The incidence of Paget Von- Schrotter syndrome, a rare form of UEDVT is 2 per 100000 persons per year.<sup>4</sup> This case represents a rare form of UEDVT caused due to repetitive and strenuous activity of upper extremity.

## Case report

A 45 year old right handed military man presented with swelling and pain in right upper limb of seven days duration. There was no history of fever and trauma to his right upper limb. He denied any past history of surgery to neck or upper limb and intravenous drug abuse. He used to shoot from his 303 rifle in his military shooting sessions. On clinical examination, there was swelling in his right arm and neck, the local temperature was raised, but his arterial pulses were normal, with no neurological deficit or bone injury. There was no axillary or cervical were normal, with no

neurological deficit or bone injury. There was no axillary or cervical lymphadenopathy and his x-ray chest does not show presence of cervical rib. His complete blood count was normal. His lipids, sugar and serum homocysteine levels were normal. Sickling test was negative and Hb electrophoresis showed AA2 pattern. He could not afford to do further procoagulant assays.

His right upper limb real time, B-mode color doppler showed thrombosis of internal jugular vein, subclavian vein and axillary vein with soft tissue edema. His 2D echocardiography was normal.

Patient was admitted and treated with low molecular weight heparin for 7 days and was maintained on oral warfarin for 2 months. He was also given antiplatelet medication.

Doppler imaging done after 2 months of warfarin therapy revealed complete recanalisation of internal jugular vein, subclavian vein and axillary vein. Patient is still in follow up without any apparent complication or relapse. He is now working as security guard and had stopped his shooting rituals.

## DISCUSSION

Early clinical recognition of UEDVT is important as mostly it is idiopathic in nature and pathogenesis and treatment of this rare vascular condition is controversial.<sup>(5)</sup> The mechanism of injury is widely thought to be associated with repetitive, strenuous upper extremity activities, as in our case a strong inertia generated by the Butt of 303 Rifle. Clinical presentation of UEDVT are generally swelling of upper extremity, prominence of superficial vein and

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neurological symptoms.<sup>4</sup> The most serious complication of UEDVT is pulmonary embolism, occurring in one third of cases.<sup>4</sup>

The diagnosis of UEDVT is confirmed by either doppler ultrasonography or contrast venography.<sup>4</sup> Treatment of UEDVT varies from conservative therapy with anticoagulants, catheter mediated thrombolysis and surgical thrombectomy in intrinsic obstruction and to revise the anatomy of abnormal costoclavicular space which is mainly done in case of extrinsic obstruction.<sup>6</sup>

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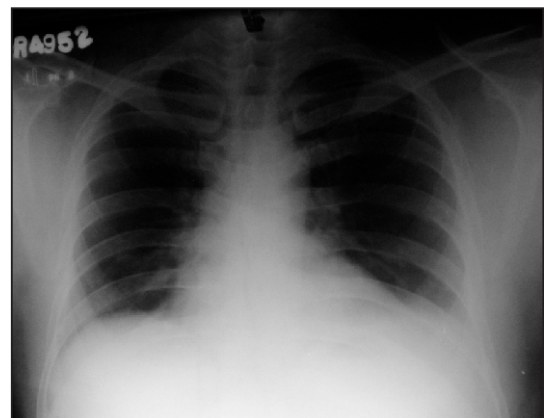
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**FIGURE NO.1**

Photograph showing soft tissue swelling of neck



**FIGURE NO.2**

X-RAY chest showing normal thoracic outlet.



**FIGURE NO.3**

2D colour doppler [transverse section] showing echogenic thrombus filling Internal jugular vein.



**FIGURE NO.4**

2D colour doppler [longitudinal section] showing echogenic thrombus in subclavian vein.