Case Report

Indian Journal of Emergency Medicine
Volume 10 Number 2, April - June 2024
DOI: http://dx.doi.org/10.21088/ijem.2395.311X.10224.4

Paget: Schroetter Syndrome

Aishwarya Walia[1], Kishalay Datta[2]

How to cite this article:
Aishwarya Walia, Kishalay Datta. Paget: Schroetter Syndrome. Ind J Emerg Med. 2024;10(2):65-67.

Abstract

Paget-Schroetter syndrome, also known as effort thrombosis, is a rare condition characterized by the development of a blood clot (deep vein thrombosis, DVT) in the deep veins of the upper extremity, particularly the subclavian or axillary veins. It typically affects young, healthy individuals, often athletes or those engaging in repetitive upper limb activities, leading to compression of these veins. Clinical presentation includes sudden onset of pain, swelling, and discoloration of the affected arm. Diagnosis is confirmed through imaging studies such as ultrasound, CT venography, or magnetic resonance imaging (MRI). Management includes anticoagulation therapy, thrombolysis, and sometimes surgical intervention to relieve venous compression. Early diagnosis and treatment are crucial to prevent complications such as pulmonary embolism or post-thrombotic syndrome.

Keywords: Thrombosis; Deep vien thrombosis; Heavy weight lifting; Supraclavicular region; Hypercoagulable state; D dimer; Clots.

INTRODUCTION

Paget: Schroetter Syndrome also known as "effort thrombosis" is a rare cause of spontaneous unilateral upper extremity deep venous thrombosis[1,2] It is usually due to compression of subclavian at the thoracic outlet. It is associated with strenuous and repetitive activity of upper extremities (seen in patient with sport activites and trauma).[1,3,4] Upper extremity deep vein thrombosis (UEDVT) is found in less than 10% of all cases of DVT. The incidence ranges from 1 to 2 per 100,000 individuals per year in various studies. It is more commonly encountered on the right side.

Author's Affiliation: [1]Post Graduate Trainee, Department of Emergency Medicine, [2]Director and H.O.D, Emergency Medicine, Max Super Speciality Hospital, Shalimar Bagh 110088, Delhi, India.

Corresponding Author: Kishalay Datta, Director and HOD, Emergency Medicine, Max Super Speciality Hospital, Shalimar Bagh 110088, Delhi, India.

E-mail: dr.kishalay@gmail.com

Received on: 16-01-2024 **Accepted on:** 28-03-2024

CASE REPORT

A 43 years old male came to emergency department with complaint of acute pain in left supraclavicular region, associated with fever with chills and rigor, cough with expectorant since five days. There was no history of strenuous activity, heavy weight lifting, smoking, alcohol or previous intravenous insertion and no other significant medical comorbidity.

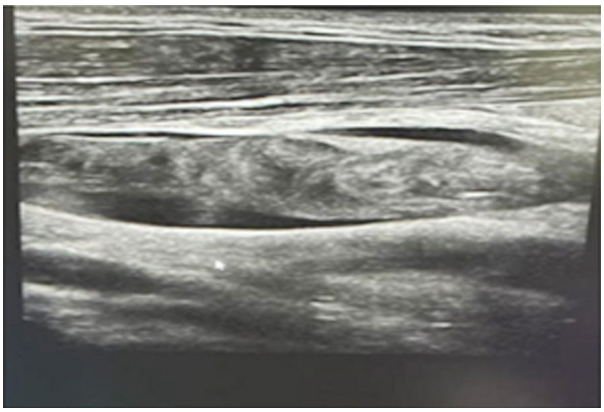

Fig. 1: A large echogenic thrombus in IJV thrombus.

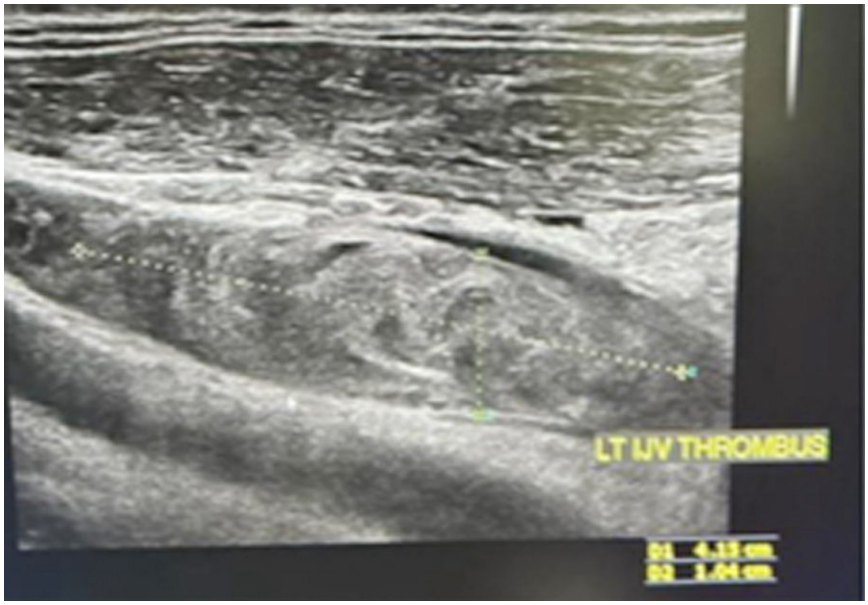

Fig. 1b: Left Internal Jugular vein with Thrombus.

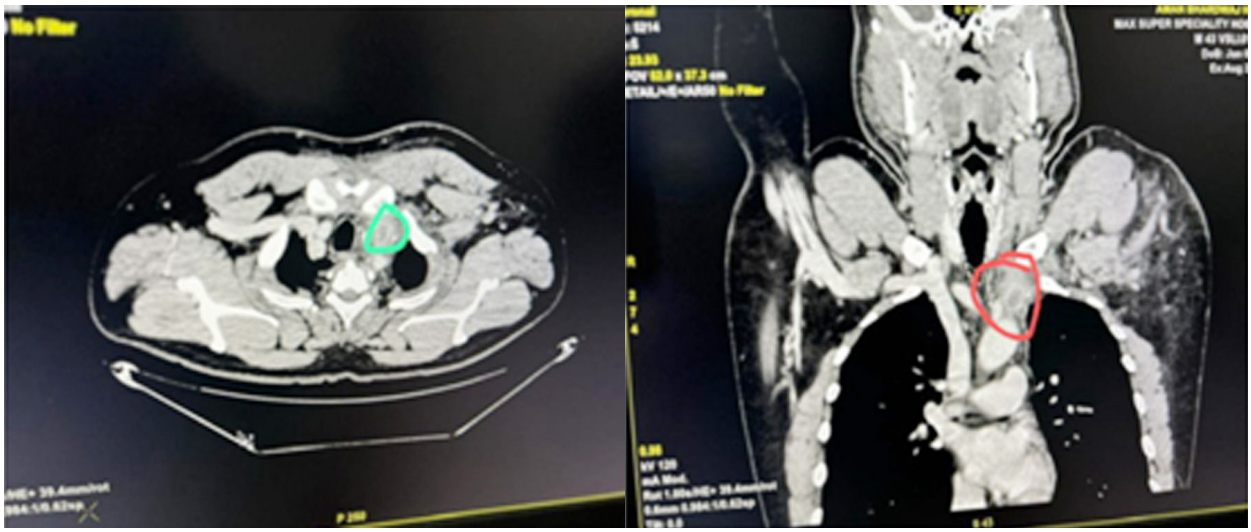

Fig. 2a & 2b: CT Venogran Scan, Marked Areas Are Locating Thrombus in Left IJV

DISCUSSION

Patient was hemodynamically stable, moderately nourished, and well built. On palpation tenderness was present at left lateral clavicular region with no sign of inflammation. On inspection - no redness, no cyanosis, no swelling, no odema and Urschel's sign was absent. No other abnormality was detected on physical examination.

Ultrasound Venous Doppler study: showed large bulging echogenic thrombus in left Internal jugular vein extending into subclavian vein with absent color flow. Rest of the Internal jugular vein was normal.

CT Venogram Scan: showed presence of an intraluminal thrombus involving the innominate vein with surrounding fat. There was a filling defect within the left Internal jugular vein in mid and lower neck with expanded lumen and internal hypodensity suggestive of thrombus. Mild expasion of left subclavian and axillary also noted.

Laboratory work: including protein C, antithrombin level, pro-thrombin, D-dimer and otheres were all with in normal range.

CONCLUSION

It was a unusual case of thrombosis in absence of any risk factor and negative hypercoagulable workup which makes this case unique. Paget: Schroetter Syndrome is rare disease found in adult male. It requires high level of suspicion and quick diagnosis. A prompt treatment has a great outcome with minimal long-term sequelae but, if diagnoses and treatment are missed, it gets complicated by significant long-term morbidity. Hence treating doctors should be aware of it for early recognition and timely referral for vascular surgery.

REFERENCES

1. Alla VM, Natarajan N, Kaushik M, Warrier R, Nair CK: Paget-Schroetter syndrome: review of pathogenesis and treatment of effort thrombosis. West J Emerg Med. 2010, 11:358-62.
2. Illig KA, Doyle AJ: A comprehensive review of Paget-Schroetter syndrome. J Vasc Surg. 2010, 51:1538-47.10.1016/j.jvs.2009.12.022
3. Saleem T, Baril DT: Paget Schroetter syndrome. StatPearls (Internet). StatPearls Publishing, Treasure Island, FL; 2022.
4. Zell L, Kindermann W, Marschall F, Scheffler P, Gross J, Buchter A: Paget-Schroetter syndrome in sports activities: case study and literature review. Angiology. 2001, 52:33742. 10.1177/000331970105200507