

UNDIAGNOSED MALIGNANCY IN A PATIENT PRESENTING WITH DEEP VEIN THROMBOSIS : A CASE REPORT

Urooj Roohani, Asna Khan, Harshita Rani, Krishna Bihari Gupta, Ilma Sheikh, Samreen Bano Nadri

Department of Respiratory Medicine

Era's Lucknow Medical College and Hospital, Era University, Sarfarazganj, Lucknow, U.P., India-226003.

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ABSTRACT

Venous thromboembolism (VTE) encompasses two medical conditions: deep vein thrombosis (DVT) and pulmonary embolism (PE). DVT refers to the formation of a blood clot in a deep vein, typically located in the leg. It ranks as the third leading cause of cardiovascular-related deaths, following heart attacks and strokes. Idiopathic VTE can sometimes be an initial clinical sign of an undiagnosed malignancy. This report examines the case of a 42-year-old male who presented with symptoms of lower limb swelling and pain.

Address for correspondence

Dr. Urooj Roohani

Department of Respiratory Medicine
Era's Lucknow Medical College &
Hospital, Era University, Lucknow-226003.
Email: urooj.roohani4@gmail.com
Contact no: +91-8853949131

KEYWORDS: Deep vein thrombosis, Malignancy, Venous thromboembolism (VTE).

INTRODUCTION

Deep vein thrombosis (DVT) is a condition characterized by the obstruction of venous blood flow due to a blockage in the veins.(1) This condition typically affects the veins in the lower limbs, starting with thrombus formation in a deep vein of the calf muscles. (2) The primary mechanisms behind DVT are outlined by Virchow's triad, which includes vessel wall damage, venous stasis, and hypercoagulability. Malignancy can be an acquired cause of DVT. Other acquired causes include but are not limited to sepsis, burn, heart failure, vasculitis, inflammatory bowel disease, smoking, hypertension and diabetes. Lower limb DVT occurs more frequently than upper limb DVT, with an annual incidence rate of 80 cases per 100,000 individuals.(3) This case illustrates the existence of a clinically significant correlation between cancer and unexplained DVT.

CASE PRESENTATION

A 42-year-old male presented with complaints of right lower limb swelling and throbbing pain for 2 months. He also complained of breathlessness for 2 months and productive cough for 1 month. He had 1 episode of bright red blood-tinged sputum (approximately 5 ml). He also gave history of ATT intake 25yrs back for pulmonary TB. He used to take oral medications for his symptoms for the last 2 months but had no relief. On admission he presented with saturation of 82% on room air, pulse rate 110 bpm, respiratory rate as 28 bpm and blood pressure of 104/80 millimeters of mercury. On auscultation, bilateral harsh vesicular breaths

sounds and bilateral crepts were present. On further physical examination, tenderness was present in right lower limb along with redness and raised temperature. Wells score was 7 which made him a high-risk candidate for pulmonary embolism. An urgent lower limb doppler was done which revealed bilateral venous thrombosis. D-dimer level was more than 8.10. Chest skiagram was performed which revealed blunting of right costophrenic angle and USG bilateral thorax showed minimal right sided effusion. He was initially kept on NIV support. However during the course of his stay, his breathlessness increased, and a repeat chest skiagram and USG bilateral thorax revealed moderate pleural effusion indicating increase in the level of pleural effusion. Thoracocentesis was done and pleural fluid analysis revealed polymorph predominance with few mesothelial cells in background, pleural fluid ADA was negative, pleural fluid for malignant cytology was positive. Sputum for AFB was negative and sputum culture showed no growth.

CT pulmonary angiography was also done to rule out pulmonary embolism. It showed no evidence of any filling defect.

CECT Thorax revealed an ill-defined heterogeneously enhancing lesion in right lower lobe of lung with distal bronchial cut off sign showing mediastinal extension.

Lymphatic spread of tumor along the right upper and middle lobe of the lung was also noted along with right moderate pleural effusion with collapse of underlying lung. CT also showed multiple enlarged heterogeneously enhancing nodes few of

them showing conglomeration, involving the upper and lower para -tracheal region -features suggestive of metastatic nodes.

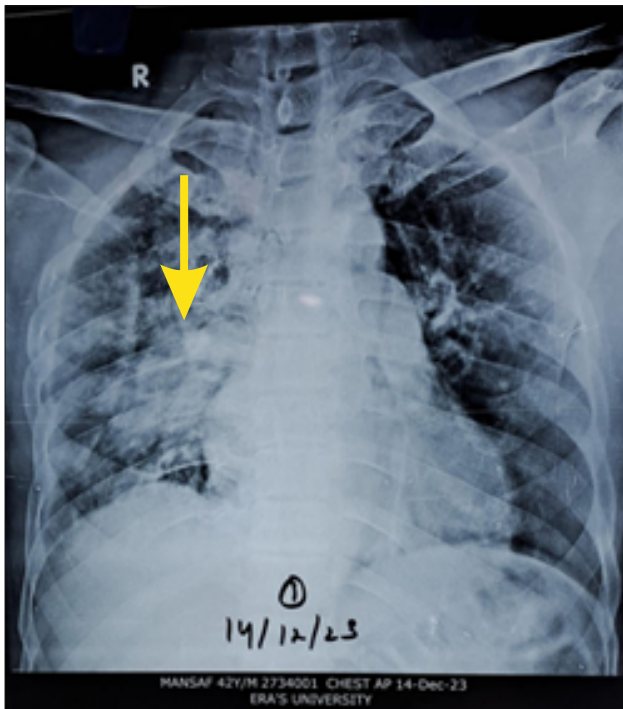


Fig. 1: Figure showing Heterogenous Opacity in right middle zone

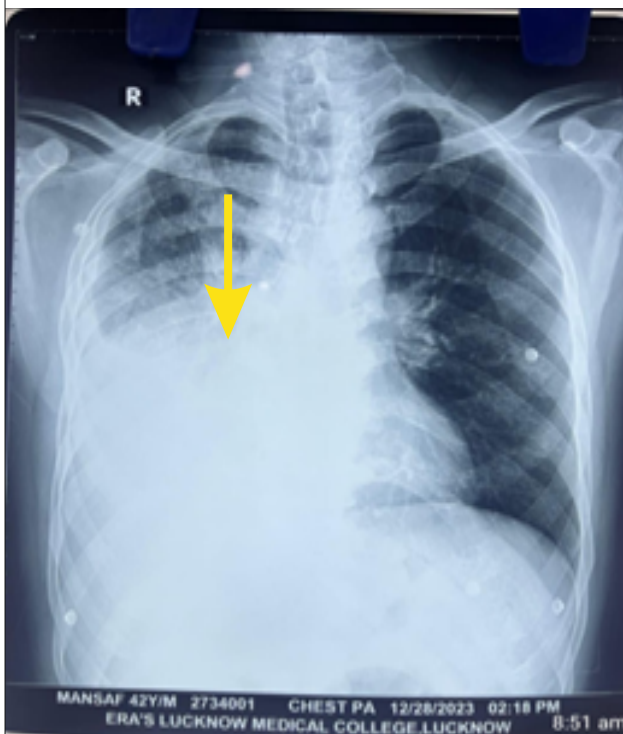


Fig. 2: Figure showing right sided pleural effusion

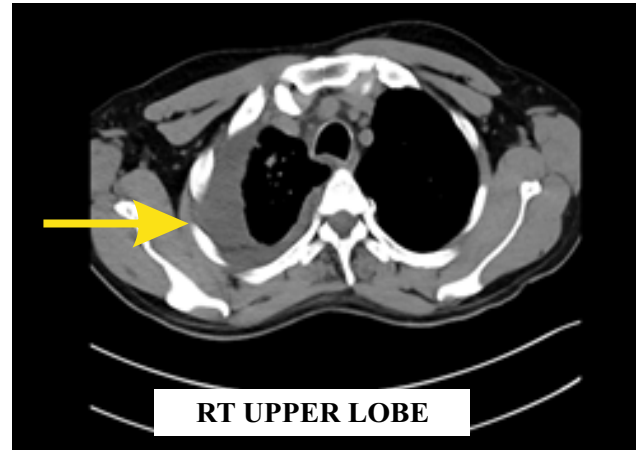


Fig. 3: Figure showing right sided effusion

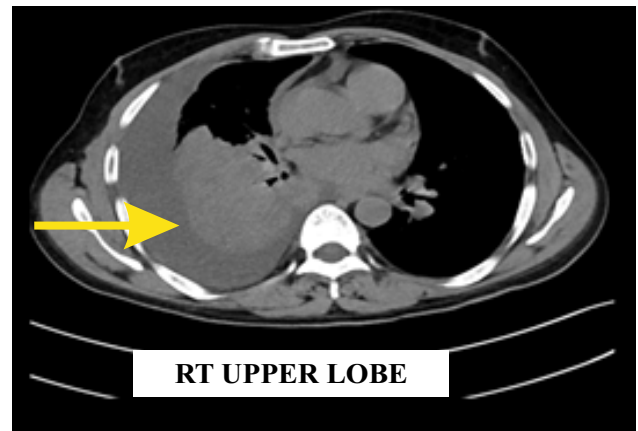


Fig. 4: Figure showing right sided effusion with mass

DISCUSSION

Venous thromboembolism (VTE) and cancer have a well-established relationship, with DVT being a common side effect among cancer patients. The onset of paraneoplastic syndrome appears to have put neoplasm patients in a prothrombotic state. Patients with unprovoked DVT had a comparatively high incidence of an undetected malignancy, according to epidemiological studies. In a general practice setting, routine CT screening can be valuable for early detection of malignancies when DVT is diagnosed. (4) Early diagnosis of occult cancer may be possible if a patient risk stratification score for VTE is validated at admission using a variety of demographic or concurrent criteria. Compared to individuals with secondary DVT, people with unexplained DVT have a 4.6-fold increased chance of developing cancer.

CONCLUSION

Our case demonstrates the importance of early recognition of Deep Vein Thrombosis through clinical evaluation and investigation which helped in earlier detection of malignancy in this patient.

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**Orcid ID:**

Urooj Roohani - <https://orcid.org/0009-0005-4906-3111>

Asna Khan - <https://orcid.org/0009-0006-4092-7312>

Harshita Rani - <https://orcid.org/0000-0001-9235-273X>

Krishna Bihari Gupta - <https://orcid.org/0009-0008-9291-3849>

Ilma Sheikh - <https://orcid.org/0009-0000-5636-6050>

Samreen Bano Nadri - <https://orcid.org/0009-0000-8889-5280>

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