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An unusual presentation of IVC thrombosis- Low backache

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ABSTRACT

Inferior vena cava thrombosis (IVCT) is less common than deep venous thrombosis of the lower extremities, particularly in the absence of an obvious congenital abnormality. IVCT is an uncommon and under recognized condition with a variety of clinical presentations [1, 2]. It is associated with a higher risk of complications than other forms of DVT. In the acute setting, PE is a concern, as are renal and hepatic vein thrombosis. Long term patients can suffer from recurrent lower extremity venous thrombosis, continued edema and postphlebotic syndrome. The mortality rate of IVCT is twice as high as that of DVT confined to the lower extremities. Patients having IVCT usually present with swelling of lower limbs, breathlessness in case of PE, distended abdominal veins [3]. Low back ache (LBA) is not an usual clinical presentation for IVCT. In this case report we present a case of IVCT with LBA as an initial presentation.

Keywords: IVCT- Inferior vena cava thrombosis, DVT-Deep venous thrombosis, PE-Pulmonary embolism, LBA-Low back ache

CASE PRESENTATION

A 27 year old male patient presented with complaints of low back ache of 15 days duration and left lower limb swelling and pain of one week duration. Lower limb swelling was insidious in onset and gradually progressive in nature. Patient had one episode of haemetemesis around 150 ml. Patient had no history of decreased urine output, chest pain, palpitation or syncope. Patient had no

previous surgical history or malignancy. Patient had history of alcohol intake for past 6 years and was a smoker for past 10 years. On clinical examination, patient had dilated veins over the chest wall and lower limbs, painful swelling present over left lower limb. Patient had bilateral insignificant inguinal lymphadenopathy. Genitalia were normal. USG abdomen showed hepatic part of IVCT extending to right common iliac vein and left

superficial femoral vein and left renal vein. Both lower limb venous Doppler was done and thrombosis was confirmed. Popliteal vein, anterior tibial and posterior tibial vein of left lower limb were compressible and showed sluggish flow. CT abdomen was done and thrombus was visualized involving hepatic part of IVC, extending up to right external iliac vein and left femoral vein and left renal vein. Echocardiogram was normal. D-dimer showed 2.82 ug/ml – elevated. Protein S level was 40% (normal-70 % to 110%), protein C level was 29% (normal- 70% to 130%)-both reduced. Homocysteine level was 12.33 umol/l. UGI scopy showed distal oesophagitis and gastritis. Patient was started on anticoagulant low molecular weight heparin and aspirin. Patient improved with therapy and was reviewed periodically with INR values.

DISCUSSION

IVCT represents a subset of DVT. Virchow recognized and described the factors predisposing a patient to venous thrombosis. The triad of stasis, vessel injury, and hypercoagulability formulated by Virchow remain the foundation for our understanding of the pathophysiology of DVT in general. Several congenital anomalies of venous anatomy can involve the IVC, and their presence

can increase the likelihood of IVCT. Because of its insidious onset, the diagnosis of IVCT is often made when signs and symptoms of clot migration and /or venous hypertension becomes apparent [4]. Clot migration or embolization into the lungs and renal veins can manifest with dyspnea and oliguria respectively [5]. Hypercoagulability is to be evaluated and levels of protein C, protein S, homocysteine are to be measured. In our patient back ache was the main presenting feature followed by swelling of lower limbs. After initiation of therapy, there was partial recanalization of IVC and other obstructions.

Anticoagulation is the mainstay of treatment. Other methods of treatment are catheter-directed thrombolysis, percutaneous transluminal angioplasty/stenting [6].

CONCLUSION

Occlusion of the inferior vena cava is rare but considered life threatening and a medical emergency. IVCT can present with a variety of clinical presentations. We report this case because of the unusual presentation of IVCT as a low back ache. This case signifies the need for high index of suspicion needed for an early diagnosis and non specific clinical presentation.

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