Deep Vein Thrombosis: A Rare Signature of Herpes Zoster

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Abstract
Reactivation of varicella zoster infection is known to cause manifold complications. However, deep vein thrombosis has been rarely described as an associate. Here we present the case of a young immunocompetent male with such a predicament.

Introduction
Herpes zoster results from reactivation of the varicella-zoster virus. Herpes zoster is a sporadic disease with an estimated lifetime incidence of 10 to 20 per cent in immunocompetent adults.1 The incidence of herpes zoster increases sharply with advancing age, roughly doubling in each decade past the age of 50 years.2 Herpes zoster can occur anywhere in the body but is unfortunately common on the face and in and around the eye. The complications of shingles are post herpetic neuralgia, cranial nerve involvement of them ophthalmic division is most common. But deep vein thrombosis is a very rare complication.3 Here we present a case of venous thrombosis related to reactivation of varicella zoster.

Case Report
A twenty four year old male presented with insidious onset aching pain over both inguinal region and thigh for one week associated with low grade fever. The pain was incapacitating so as to precipitate limping for last two days. Three weeks back he was treated for fever, painful erythematous vesicular eruptions over left half of forehead, left hemicranial pain in local hospital with oral Acyclovir.

On presentation, he had mild pallor, pulse rate of 98/min, blood pressure 120/80 mmHg, normal respiratory rate, neck veins and thyroid gland. No jaundice, cyanosis, lymphadenopathy or clubbing were detected. There were hyperpigmented macular rashes over left half of face in the distribution of ophthalmic division of Trigeminal nerve (Figure 1). Swelling of the whole left lower limb (Figure 2) with tenderness over left inguinal region, thigh and calf were present. The right lower limb was also swollen with tenderness over thigh. Other systemic examinations were noncontributory. Investigations including complete haemogram, blood biochemistry, routine urine, chest X ray, ECG and USG abdomen were normal. Serology for HIV 1 and 2 were negative. On account of asymmetric limb swelling and tenderness a D-dimer assay was performed which came out to be highly raised (10,000 µg/L).

Doppler study of venous system revealed thrombosed left common iliac vein (Figure 3), External Iliac vein; large long segment venous thrombosis noted in left common femoral vein (Figure 3), superficial femoral vein and also in right Superficial femoral and right popliteal vein (Figure 4).

We investigated for thrombophilia and his serum for antinuclear antibody by Hep-2 method and anti-phospholipid antibody were negative. Test for Protein C and S, fibrinogen levels were normal. We started injection heparin, oral warfarin in combination with oral acyclovir. Within seven days, patients’ pain and swelling has remarkably resolved. Acyclovir was given for a fortnight while the warfarin was being continued.
Herpes Zoster is caused by Varicella Zoster Virus (VZV), a double stranded DNA virus related to Herpes Simplex virus group. Most people are infected with this virus as an episode of chickenpox during childhood. It remains dormant in the dorsal root ganglion or the ganglion semilunare (ganglion Gasseri) in the base of the skull. Its reactivation causes herpes zoster, which is characterised by unilateral neuralgia followed by vesicular eruptions in a dermatome distribution, but it is extremely rare for patients to suffer more than three recurrences. Other complications include post-herpetic neuralgia, choreoretinitis, meningoencephalitis, herpetic vasculitis, hepatitis, pneumonia. Reports of haemorrhagic myopericarditis and deep vein thrombosis with pulmonary embolism are scarce in world literature. Deep venous thrombosis is a very rare manifestation of Varicella, and vascular endothelial wall damage or endothelial activation or antiphospholipid antibodies are implicated in the pathophysiology of thrombosis. A serological IgM antibody determination and look for a rise in the IgG or the complement fixation test remains useful for the confirmation of the clinical diagnosis.

In 1970 Minick et al. first noted that viruses may induce atherosclerosis, and a relationship was proposed between viruses, vasculitis and possibly thrombosis. Literature search revealed mostly anecdotal case reports. In 1984, Ali described a case of iliofemoral vein thrombosis in a patient with chickenpox and considered this as a direct result of the VZV infection. Since then, some reports have supported that VZV infections were related to thrombotic complications.

VZV infection has been found to induce endothelial damage in blood vessels. Reactivation of VZV commonly occurs in the elderly and often in the background of an immunocompromised state. Our youthful patient stands out in this regard and more so because of his presentation with extensive multiple venous thrombosis. It is food for thought that despite being treated adequately with oral antiviral for shingles our patient was at risk of developing deep vein thrombosis.

References
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Immune Thrombocytopenia (ITP) : A Rare Association of Lymphnode Tuberculosis

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Abstract

Although various haematologic abnormalities are known to occur with tuberculosis, association of immune thrombocytopenia with tuberculosis is uncommon. We report a case of retroperitoneal lymph node tuberculosis who presented with ITP. A 76 year old female was admitted to our hospital with oral mucosal bleed and petechial lesions over extremities and abdomen. A diagnosis of immune thrombocytopenia (ITP) was established. Intravenous Anti-D immunoglobulin and Dexamethasone therapy was started, but failed to eliciting any sustained platelet response. CT abdomen revealed multiple retroperitoneal lymph nodes with central necrosis. Histopathology (HPE) of these revealed caseating lymphadenitis suggestive of tuberculosis. After 2 months of anti-tuberculous therapy, the platelet counts returned to normal and patient was off all therapy for ITP thereby suggesting likely association between tuberculosis and immune thrombocytopenia.

Introduction

Tuberculosis is one of the commonest infectious diseases in India. Various haematologic abnormalities such as anaemia, leucocytosis, monocytosis, lymphopenia, leucopenia, thrombocytopenia, thrombocytosis, leukemoid reactions and pancytopenia have been described in tuberculosis but immune thrombocytopenia (ITP) as the only presenting feature of tuberculosis is extremely rare with few published reports.

Case Report

A 76 year old female, known long standing diabetic and hypertensive on regular treatment, was admitted to our hospital with haemorrhagic bullae in oral cavity and extensive petechial lesions over lower limbs and abdomen. There was no history of any haematologic disorder or liver disease or significant history of any medication in the past apart from her usual anti-diabetic and anti-hypertensive medications.

The initial total leucocyte count was 6890/cmm with differential count as follows: neutrophils-57%, lymphocytes 33.5%, monocytes 7.5%, eosinophils 1.9%, basophils...