



Penile Mondor's Disease: A Case Report and Review of Literature

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Abstract

Penile Mondor's Disease (PMD), thrombophlebitis of the superficial dorsal vein of the penis is a rare, self-limiting, benign process having acute presentation with pain and induration of the dorsal part of the penis. Exact etiology of the disease is not known but prolonged sexual intercourse has been stated as the most common cause in the literature. A simple physical examination is sufficient for diagnosis but color doppler ultrasonography is often carried out as a further investigation. Proper diagnosis and consequent conservative treatment with reassurance can help the patients to relieve their anxiety. We describe the symptoms, the sonographic findings and treatment of a 29-year-old male with superficial thrombophlebitis of the penis dorsal vein.

Keywords: Penile; Mondor's disease; Thrombophlebitis

Introduction

Mondor's disease is thrombophlebitis of the superficial dorsal vein of the penis veins sometimes thrombophlebitis of the circumflex vein of the penis with sparing of the dorsal vein. It was first defined by Henri Mondor in the superficial veins of the chest wall in 1939 [1]. In 1955, Braun-Falco defined dorsal phlebitis of the penis as a part of generalized phlebitis [2]. Isolated thrombosis of the dorsal superficial vein of the penis was first reported and Penile Mondor's disease was defined by Helm and Hodge in 1958 [3]. PMD is a rare and under-recognized benign genital condition and only <100 cases have been reported in literature [4]. Its real incidence is considered to be higher than reported. The true incidence of Mondor's disease is unknown, but one series showed an incidence of 18 of 1296 (1.39%) patients in a sexually transmitted disease clinic over a 12-year period [5].

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Case Presentation

A 29-year-old unmarried man presented to our hospital with a three days history of pain and swelling on the dorsal side of the penis. Pain was felt more severe at the time of penile erection. There was history of vigorous masturbation 5 days back. The patient otherwise denied trauma, dysuria, hematuria, difficulty with erection, multiple sexual partners, or attempted intercourse. He had no relevant past medical history. Physical examination revealed a well-developed male with no signs of lymphadenopathy in the groin region and without any palpable hernias. Genitourinary examination revealed an uncircumcised penis and a palpable cord on the right dorsal side of the penis (Figure 1). The overlying skin was completely intact with no erythema. Mild tenderness of the penile shaft was noted and testicular exam revealed no swelling or pain on palpation. Urine microscopy, full blood count, and coagulation studies were all within normal limits. On Doppler ultrasound a cord-like non-compressible lesion containing internal echogenicity with no color filling and flow spectrum around the coronal sulcus was detected (Figure 2). Doppler ultrasound of cavernosal arteries and veins were normal and the administration of vasoactive agent was thought to be unnecessary.

The patient was anxious and worried about his future sexual performance and fertility. Patient was managed conservatively with reassurance, oral anti-inflammatory and anticoagulant aspirin therapy and local application of heparin gel for a period of 2 weeks as a result of which the pain subsided and induration disappeared. Now after follow up of 3 months there is no residual induration and patient is totally asymptomatic with no erectile pain or dysfunction.

Discussion

Penile Mondor's Disease (PMD), thrombophlebitis of the superficial dorsal vein of the penis is a rare, self-limiting, benign process having acute presentation with pain and induration of the dorsal part of the penis [1]. Various causes of the disease that has been mentioned in the literatures include



Figure 1: PMD: a palpable cord on the right dorsal side of the penis.

frequent, severe, and prolonged sexual intercourse, penile trauma, prolonged sexual abstinence, local (e.g. syphilis, candida infections) or distant infections, history of sexually transmitted diseases, thrombophilia, repair of inguinal hernia, orchiopexy, varicoselectomy, use of intracavernous drugs, use of vacuum, Behçet's disease, body building exercises, cancer in the pelvic region, metastatic pancreas cancer and migratory phlebitides due to paraneoplastic syndromes, venous occlusion caused by filled bladder, abuse of intravenous drugs, and tendency to thrombosis [2-5]. Thus any of the components of Virchow's triad i.e. coagulation due to injury to vessel wall, stasis, and hyper-coagulation can lead to the development of thrombosis of the dorsal vein of the penis. But the main etiological cause is considered to be trauma due to sexual intercourse. In present case there was history of vigorous masturbation which might have caused injury to the vessel wall.

The patients usually present with hardness like a rope at dorsum of the penis. They complain of continuous pain and throbbing. Sometimes erythema and edema may be seen on the penile skin. Some patients feel distention on the site of thrombosis. There is usually pain typically exacerbated during erection [6,7]. In present case, presentation was with pain and swelling on dorsum of penis with palpable cord. Important differential that should be considered in the diagnosis of a painful, fibrotic lesion of the penis includes sclerosing lymphangitis and Peyronie's disease. However, sclerosing lymphangitis is characterized by thickened and dilated lymphatic vessels whose morphology is serpiginous. Peyronie's disease results from a thickening of the tunica albuginea and presents as a well defined fibrotic plaque on the penis.

PMD can be diagnosed with medical history and physical examination. The role of imaging in PMD is to identify the intravascular thrombus. In case of doubt we may take the help of Doppler ultrasound. Doppler ultrasound findings include an increase in the diameter of superficial dorsal vein, non-compressibility and thrombus in the superficial dorsal vein [8]. PMD is clinically divided in three stages as acute, subacute-chronic and recanalization stages. In this case report patient presented in acute phase. In the acute stage, sexual activity should be restricted in addition to the use of oral anti-inflammatory, anti-coagulant agents. This patient was also managed conservatively with oral anticoagulant aspirin, anti-inflammatory drug Diclofenac sodium orally and local application of anticoagulant heparin gel along with advice to avoid sexual activity.

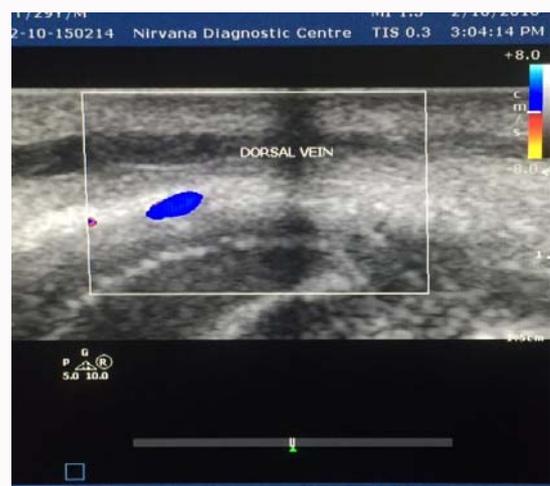


Figure 2: Doppler ultrasound findings include an increase in the diameter of superficial dorsal vein, non-compressibility and thrombus in the superficial dorsal vein.

Creams containing heparin and anti-inflammatory drugs are used in the subacute and chronic stages in addition to restriction of sexual activity. Most of the cases seen early respond well to conservative treatment such as anti-inflammatory agents and anticoagulant and antithrombotic drugs. These drugs reduce the recovery period. In cases of infection antibiotics must be used. Most cases resolve in four to six weeks and are recanalised by nine weeks. In persistent cases, surgical treatment is recommended which include stripping of the vein or thrombectomy.

In conclusion, PMD is a rare under-recognized benign genital condition that every attending physician should be aware of this, self resolving condition to prevent misdiagnosis and overaggressive treatment with its attendant physical and emotional trauma.

References

- Niechajev I. Mondor's subcutaneous banding after transaxillary breast augmentation: case report and the review of literature. *Aesthetic Plast Surg.* 2013; 37: 767-769.
- Bird V, Krasnokutsky S, Zhou HS, Jarrah R, Khan SA. Traumatic thrombophlebitis of the superficial dorsal vein of the penis: an occupational hazard. *Am J Emerg Med.* 1997; 15: 67-69.
- HELM JD Jr, HODGE IG. Thrombophlebitis of a dorsal vein of the penis; report of a case treated by phenylbutazone (butazolidin). *J Urol.* 1958; 79: 306-307.
- Hamilton J, Mossanen M, Strote J. Mondor's Disease of the Penis. *West J Emerg Med.* 2013; 14: 180.
- Kumar B, Narang T, Radotra BD, Gupta S. Mondor's disease of penis: a forgotten disease. *Sex Transm Infect.* 2005; 81: 480-482.
- Manimala NJ, Parker J. Evaluation and Treatment of Penile Thrombophlebitis (Mondor's Disease). *Curr Urol Rep.* 2015; 16: 39.
- Polat H, Yucel MO, Gok A, Benlioglu C, Cift A, Sarica MA. Penile Mondor's Disease: Primum Non Nocere! *Urol J.* 2015; 12: 2096-2098.
- Polat H, Cift A, Gulacti U, Benlioglu C. The Damage of Penile Doppler Ultrasonography in Diagnosis of Penile Mondor's Disease: A Report of Two Cases. *Urol Case Rep.* 2015; 3: 42-43.