In 1955, the first reported case of Mondor’s disease (superficial thrombophlebitis) of the penis was published. Since then, there have been scattered reports of penile Mondor’s disease in the literature. Most studies suggest sexual trauma or neoplasm as the most frequent etiologic factor.

The authors report a case of a sickle cell episode presenting with superficial thrombophlebitis of the penis. The patient was treated with an antiinflammatory agent and reassured that this is a self-limiting process. Resolution of symptoms occurred within 6 weeks.

(Key words: sickle cell, thrombophlebitis, penis, Mondor’s disease)

In 1939, Mondor reported a case of phlebitis of a superficial vein of the chest wall.1 In 1955, Braun-Falco noted that thrombophlebitis could also affect the penis, and so superficial thrombophlebitis of the penis has also been called Mondor’s disease of the penis.2 Since 1955, there have been 77 cases described in the literature.3-8 Bird et al8 cite sexual trauma from intercourse, masturbation, and the use of constricting devices as etiologic factors. We report a recent case of Mondor’s disease associated with a sickle cell episode.

Report of case
A 47-year-old black man presented with acute onset of bilateral lower extremity and back pain along with a painless cord on the dorsal aspect of his penis. The patient stated he had penile pain only when he had erections. Trauma to the penis, prolonged or vigorous sexual activity, use of constricting devices, and venereal diseases were denied. Medical history was significant for sickle cell trait, presenting with an acute sickle cell crisis, with multiple prior episodes of thrombophlebitis of his lower extremities. Sickle cells are abnormally shaped red blood cells, which change the blood’s consistency and cause turbulent flow. This pool of abnormal blood components creates ischemia, causing further distortion in morphology and therefore further propagation of thrombus formation. Another factor, of unknown significance, is the history of non-Hodgkin’s lymphoma. He was not taking any medications.

Physical examination revealed a healthy, circumcised male with a cord-like swelling extending along the dorsum of his penis from the pubic symphysis to mid-phallus. The remainder of the examination including genitourinary examination was otherwise normal. Complete blood count, including platelets, prothrombin and partial thromboplastin levels, and urinalysis were within normal limits, except for increased numbers of sickle cell forms in the differential count.

Duplex sonography with color Doppler was done to determine if the condition represented venous thrombosis. On ultrasound examination, a thrombus was identified within the lumen of both the superficial and deep dorsal veins of the penis (Figure 1). The veins were noncompressible (Figure 2). On color Doppler examination, no flow was visualized within either vein, whereas blood flow was observed in adjacent vessels.

The patient was advised to abstain from sexual activity until the symptoms resolved. He was started on 550 mg naproxen sodium twice daily and was told to apply warm compresses to the affected area. He was followed up in our clinic bimonthly for 6 weeks, after which he reported painless erections and no palpable cord along the dorsum of his penis.

Discussion
The pathogenesis of thrombophlebitis can be attributed to factors proposed by Virchow in 1845: (1) damage to vessel wall integrity, (2) changes in blood flow, and (3) changes in the blood components themselves.9 Previous case studies have postulated etiologic factors that include sexual trauma, prolonged sexual intercourse or abstinence, venous occlusion by a distended bladder, Cunningham clamps, constricting devices, local or remote infectious diseases, pelvic tumors, and intravenous drug abuse.3-8 Our patient denied all of these possible etiologic factors.

Our patient had sickle cell trait, presenting with an acute sickle cell crisis, with multiple prior episodes of thrombophlebitis of his lower extremities. Sickle cells are abnormally shaped red blood cells, which change the blood’s consistency and cause turbulent flow. This pool of abnormal blood components creates ischemia, causing further distortion in morphology and therefore further propagation of thrombus formation. Another factor, of unknown significance, is the history of non-Hodgkin’s lymphoma. Although our patient was...
Figure 1. A transverse view with a 10 mHz linear transducer on the dorsum of the penis by use of power Doppler. The superficial (SV) and deep dorsal (DV) veins have no flow. Flow is seen in adjacent vessels.

Figure 2. A similar transverse view is obtained without (NC) and with (C) compression. There is no compressibility of the superficial (long arrow) or deep (short arrow) vein. Noncompressibility indicates a thrombus. Both veins are enlarged with a few internal echoes typical of an acute thrombus.
in remission, an association of Mondor’s disease of the penis and neoplastic processes has been noted by Sierra-Callejas et al., who reported two cases associated with carcinoma of the bladder and prostate. Horn et al. described penile vein thrombosis as an unusual initial manifestation of metastatic pancreatic adenocarcinoma. Too few studies are available to elucidate the exact relationship between malignancies and thrombophlebitis.

Several treatment modalities have been proposed, from observation to excision of the thrombosed segment. The only treatment recommended by all studies was temporary abstinence from sexual intercourse until resolution of symptoms. In studies where no therapy was implemented, the thrombosed vein completely healed and recanalized after 6 to 8 weeks. Doremieux et al. recommend the use of antiinflammatory medications. They state that these medications did not alter the time to resolution, but that the degree of initial discomfort was considerably less. Freeman obtained good results in decreasing discomfort in patients with Mondor’s disease of the breast by local infiltration of anesthetic agents. Following his example, Khan injected 5 mL to 10 mL of 0.5% bupivacaine around the thrombosed venous segment. Those authors make special note that in cases of Mondor’s disease associated with infection, injection of local anesthetics is ill-advised and oral analgesics should be instituted. Certain authors did thrombectomies for relief of intractable pain and in cases where infections did not respond to antibiotics.

Patients with Mondor’s disease of the penis should be reassured that this is a self-limiting process, with symptoms typically resolving within 6 to 8 weeks. Antiinflammatory agents or analgesics may decrease initial discomfort. Sexual potency, activity, and orgasm are not permanently altered.

References