IDIOPATHIC THROMBOSIS OF THE SUPERFICIAL SCROTAL VEINS (MONDOR’S DISEASE) DURING THE POSTOPERATIVE PERIOD OF AN UMBILICAL HERNIORRHAPHY

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Summary.- OBJECTIVE: Mondor’s disease is a superficial thrombophlebitis and usually occurs in the anterior and lateral chest. The scrotal vein thrombosis is a fairly rare disease.

METHODS: Thirty-four year old male who consulted for inguinal tumor and pain in the postoperative period of an umbilical hernia repair, which resulted in a subsequent scrotal vein thrombosis treated conservatively.

RESULTS: It was resolved with conservative treatment, with recanalization of the scrotal veins.

CONCLUSION: Mondor’s disease is a rare entity, related to multiple etiological factors. The diagnosis is made easily with Doppler ultrasound and most resolve with conservative treatment.

Keywords: Mondor’s disease. Superficial venous thrombosis. Phlebitis.

INTRODUCTION

Mondor disease is a superficial thrombophlebitis, which usually occurs in women (75% of cases) between the second and fifth decade of life, and typically in the anterior and lateral thorax, can occur as thrombosis, phlebitis or thromboflebitis (1). In 1870 Fagg was described as a form of escleroderma (2) and then described at various levels and in the thorax wall, in a superficial way or in the thoraco-epigastric region, but was Mondor, in 1939, who gave her name to thrombosis of the thoracic-epigastric vein in a woman. Since then, there have been observing other similar entities in different locations and can affect the tributary veins of the venous system of superior (3) epigastric, inferior epigastric veins, lower thoracic-epigastric venous system and even affect the groin or penis; encumbrances have been described at the axillary region, groin, cervical region, antecubital and limbs.

With regard to urological locations, phlebitis has been reported at the penile dorsum in the context of a gene-
ralized phlebitis and superficial venous thrombosis of the penis ("penile Mondor’s disease"), associated with scrotal vein thrombosis or plexus pampiniformis. This condition is also called venereal sclerosing lymphangitis of the penis. Have been described more than fifty cases of penile Mondor’s disease with an incidence of 1.39% estimated. The pampiniform scrotal plexus presentation in few cases have been described in medical literature.

CASE REPORT

Male patient, 34 years old with a history of tonsillectomy and urinary tract infections occasionally. During the postoperative umbilical hernia, went to the emergency service due to discomfort and inguinal tumor and testicular pain. Similarly, referring mild dysuria and minimal discomfort in the urethral meatus.

Analytically there were no significant changes from the biochemical or hematological point of view, with normal coagulation study (including protein C and S).

The immunologic study showed antinuclear antibodies (ANA) positive, ENA I (RNP) antibody negative, and anti-ENA (Sm) antibody negative.

Abdominal ultrasound and CT abdomen and pelvis showed no significant alterations. Doppler showed the

FIGURE 1. Longitudinal (A) and transverse (B) section of the perineum. Seen in both images at the root of the penis (*) and superficial to it and located in the subcutaneous tissue, vascular structures (arrow), corresponding to the posterior scrotal veins with signs of thrombosis.

FIGURE 2. Longitudinal section of the perineum. The posterior scrotal veins are observed later increased in size and containing echogenic inside, a sign indicative of thrombosis.

FIGURE 3. Demonstrates the absence of vascularization with Doppler study of the thrombosed posterior scrotal veins.
existence pelvic vein thrombus of the inguinal tumor and thrombosis of the posterior scrotal veins.

During admission for study, the patient developed thrombophlebitis of the upper limbs, most likely related to the IV way. The patient was treated with conservative measures, anticoagulation with warfarin at standard doses, anti-inflammatory, antibiotics in the first place by discreet dysuria and bed-rest. At six months the patient reported some discomfort, even non-specific, perineal and inguinal region, despite the resolution of the process.

DISCUSSION

Mondor disease is a rare condition, perhaps underestimated, either because it is a benign and self-limited in time or in the case of penile presentation due to patient shame to go to his doctor.

The etiology (4) of the disease is associated with conditions that trigger the Virchow triad: damage to the vessel wall, stasis and hypercoagulability. It has been proposed as a possible etiopathogenic mechanism intermittent torsion testicle or a previous injury of the vein wall would cause thrombosis. Trauma, such as vigorous sexual activity, the use of constrictor elements have also been described as potential trigger of this disease in the penis, the electrocution, hypospadias, inguinal hernia surgery, deep vein thrombosis, and I.V. drug and filariasis have also been implicated as a causal mechanism. Recently, other possible mechanisms have been implicated as immune because eosinophilic infiltrates were found in a few cases (Table I). In our case we have only the a recent history of umbilical hernia surgery with postoperative bleeding (hypercoagulability study turned out to be negative), with only the immunological study of ANA positivity that was not confirmed later.

All these mechanisms can cause the presentation of a thrombus, resulting in partial or total obstruction of the lumen, and recanalization, producing a fibromuscular hyperplasia of the vessel wall and infiltration and fibrosis of the surrounding subcutaneous tissue. The intima layer damage may produce periphlebitis or endophlebitis, aggravating the process. When sticked to adjacent skin produces the classic cord secondary to fibroblast proliferation.

In most cases this is a thrombophlebitis, although some may be due to lymphangitis. The pathological study showed the existence of a thrombus in the lumen, along with a thin vascular wall with loss of differentiation between the intima and connective tissue. The intima layer is also thinned and with thickened endothelial cells, and the connective tissue shows a decrease of elastic element. Later recanalization occurs, although it has come to describe lesions with ulceration and necrosis.

Some authors suggest, given the anatomical distribution of classical Mondor’s disease, that is could be a lymph node, suggesting the name “linfangiofibrosis thrombotic occlusion”. Differential diagnosis is obtained by immunohistochemical methods. The positivity for CD31...
and CD34 suggests a venous origin (5), excluding its lymphatic origin the negativity to LYVE1 and D240. The clinical manifestations are usually self-limiting and of short duration, evolving in three phases:

1) Acute. Appears at 24-48 hr, with severe pain and sometimes fever,

2) Subacute. It can last between 4-8 weeks. The pain is lesser and may be associated with urinary symptoms,

3) Recanalization. Occurs 6-8 weeks recanalization of the vein, with the possible disappearance of the thrombus and resolution of the picture. In some other cases may appear asymptomatic or discomfort to torsion, stretching or tenderness of the area. Usually, the pain goes away after ten days however may persist longer the feeling of tension and the cord up to a year, although usually it is resolved in 4-6 weeks.Penile presentation may in some cases, and a long term, to evolve into a phimosis.

For the diagnosis of this condition should be taken into consideration the history and symptoms with cord and pain sensation in the affected area. For exploration there is a palpable typical indurated cord (7). Blood tests should be performed with coagulation tests and urinalysis to rule out coagulation disorders (hypercoagulability) and infection.

The imaging test of choice is ecography (8) as it confirms the existence of venous thrombosis, and dismisses the existence of a mass that can compress the veins, and rules out the differential diagnosis with other pathologies. The Doppler will demonstrate the existence of thrombosis and its extension. CT is used to identify tumors at various levels. On rare occasions it is necessary to perform to a biopsy of the lesion, taking place when there is doubts about the diagnosis, ulcer-necrotic lesions, etc.

It must make a differential diagnosis with other entities such as sclerosing lymphangitis, the angiitis subacute cutaneous, polyarteritis nodosa and angiitis, Peyronie disease, sexually transmitted disease, coagulation disorders, fracture of corpus cavernosum or inguinal hernia.

The treatment of penile Mondor’s disease begins with a conservative attitude, abstention from sexual activity and symptomatic treatment. In the acute phase has been proposed the use of antibiotics, anti-inflammatory drugs and anticoagulants. For subacute and chronic phases were used anti-inflammatory creams and heparin. In some persistent cases may be necessary to perform a thrombectomy and even resection of the dorsal penile vein. In our case, we chose the anticoagulant therapy and chemotherapy due to the presence of voiding symptoms.

**CONCLUSION**

Mondor’s disease is a rare entity, related to multiple etiological factors (sex, trauma, neoplasm, hypercoagulability, etc.). The diagnosis is made easily with Doppler ultrasound and mostly resolved with conservative treatment (rest, anticoagulation and anti-inflammatory drugs).
REFERENCES AND RECOMMENDED READINGS
(*of special interest, **of outstanding interest)


