Mondor’s disease is a very rare condition in which there is chronic thrombophlebitis of superficial veins of the thorax or of anterolateral thoraco abdominal wall [1]. The most commonly affected veins are the lateral thoracic vein, thoraco epigastric vein, superior thoracic vein etc [2]. It was first reported in 1869 by Faage CH and in 1939 it was described by a surgeon Henry Mondor [3, 4]. But due to lack of awareness of its occurrence there was improper clarification regarding the epidemiology of the disease, etiology and its pathogenesis. Thrombophlebitis of the superficial veins of thorax or thoraco epigastric region can occur following excessive physical activity, compressive bandages, tight clothing. It occurs in case of trauma or some inflammatory condition of the skin in that region. It can also occur following breast biopsy or breast surgery. [5, 6, 7, 8]. The most common clinical manifestations are painful subcutaneous cord, sensation of tension and skin retraction. Anatomically the affected veins may be the lateral thoracic, thoraco epigastric and
superficial epigastric veins. [9]. In the present study, an abnormally thickened lateral thoracic vein was identified on the right side of the chest wall of a middle aged male cadaver, at the level of fifth intercostal space in the anterior axillary line that extended upwards and medially and drained into right subclavian vein below the clavicle. This was identified as Mondor’s disease or chronic thrombophlebitis of the lateral thoracic vein.

MATERIALS AND METHODS

During the routine dissection of superior extremity, in formalin fixed, middle aged male cadaver, during the period 2012-2013, in M.S. Ramaiah Medical College, Bangalore, a thickened cord like structure was noted on the right pectoral region. It was bluish in colour. It was neatly dissected from commencement to termination and photographs of the same were taken. A small piece was sent for histopathological examination.

CASE REPORT

In the present case, an abnormally thickened lateral thoracic vein was identified. (Fig. No 1). The vein commenced from the right side of the chest wall at the level of fifth intercostal space in the anterior axillary line and extended upwards and medially and drained into right subclavian vein below the clavicle. It had produced a groove along its course on the pectoralis major muscle (Fig. No 2). It was diagnosed as chronic thrombophlebitis of lateral thoracic vein (Mondor’s disease) and section of the vein was sent to histopathology. Histopathological examination confirmed the vein which was showing destruction of tunica intima as in chronic inflammatory condition. The lumen showed presence of clot. (Figure No. 3 and 4).

DISCUSSION

Mondor’s disease was first described by Henri Mondor in 1939 as string phlebitis [10]. A case was reported earlier in which a 50 year old female presented with history of hard, linear cord like mass at the upper outer quadrant of the right breast associated with mild tenderness
Ultrasound showed a non-compressible, hypoechoic undulating tubular structure measuring 2.2 X 0.3 X 0.5 cm in the subcutaneous fat. Color Doppler imaging revealed no flow in this structure although arterial flow was observed adjacent to it, suggesting that it may be a thrombosed superficial vein [8]. In another study reported, out of 63 cases of Mondor’s disease (57 women and 6 men) 31 patients had no apparent cause, 3 cases were due to myentasis, 8 cases were due to accidental local trauma, 7 cases had iatrogenic origin, 6 cases due to inflammatory process and 8 cases due to breast cancer. It may be possibly due to physical strain, tight dressings, tight fitting bras and in case of axillary shaving. It has also been observed in some blood dyscrasias [5]. In another report, out of 4 cases (2 men, 2 women), no case was associated with malignant disease or hypercoagulability [9].

The condition though benign and self limited, has been associated with breast cancer. It requires only symptomatic therapy [10]. Subcutaneous penile vein thrombosis also has been described. Similar cording may rarely occur in the groin, abdomen, arm and axilla. In the axilla it may be termed the axillary web syndrome and may be evident after axillary lymph node dissection and sentinel lymph node biopsy [11].

It is a self limiting disorder and can be treated by medical line but rarely thrombophlebitis of these veins, can progress into deep venous system, and may cause pulmonary embolism or embolism into any of the vital organs.

The pathophysiology has been explained as pressure on the vein with stagnation of blood or as direct trauma to the vein itself. It also could be due to contracting and relaxing of pectoral muscles which cause repeated stretching and relaxing of the veins lying superficially. It usually involves any age group but most commonly between 30 and 60 years with no racial or ethnic predilection.

Differential diagnosis: It has to be differentiated from Lymphangioma, lymphangiectasis, Erythema nodosum, cellulitis and metastatic carcinoma [11].

Histopathological features of the vein were observed. Verhoeff-Van Gieson (VVG) (Figure No. 3). Staining for Elastic Fibers and Masson’s Trichrome staining for collagen fibers were negative. (Figure No. 4) There was damage to tunical intima of the vein. There was abundant blood clot present in the lumen.

**CONCLUSION**

Mondor’s disease or chronic thrombophlebitis of the superficial veins of the thorax is an uncommon condition and is rarely associated with breast cancer. It involves lateral thoracic vein, thoraco epigastric vein and any superficial veins in axilla, breast or penis. It is a self limiting disorder and appears like a cord underneath the skin. Initially it may be painful but later it becomes a painless condition. In the present study a cord like lateral thoracic vein was observed on the right side. On examination it had produced a groove on the deeper aspect on the pectoralis major muscle. It was terminating into the right subclavian vein deep to clavicle. Histopathological diagnosis of the variation found was in favor of a vein with damaged intima. It may be possibly due to physical strain, tight dressings, tight fitting bras and in case of axillary shaving. It has also been observed in some blood dyscrasias.

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**REFERENCES**


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