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An unusual case caused by a common reason: Mondor's disease by oral contraceptives☆,☆☆

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ABSTRACT

INTRODUCTION: Mondor's disease (MD) of the breast is a rare condition at breast clinics. We do not have enough data to establish its real prevalence. As a known data, most of the patients that were admitted to breast clinics are not breast cancer. Also MD is a rare entity and diagnosing this entity and informing the patient about it is very important. We present here this case to remind breast clinic practitioners that MD can be seen without trauma (neither surgical nor physical). Also clinical and radiological findings and the treatmentof the MD were discussed.

PRESENTATION OF CASE: A 35 year old woman was admitted our clinic with cutaneous breast retraction. She had no risk for thrombosis else using oral contraceptives. Mondor's Disease was diagnosed and supported by radiological findings. Rheumatologic and hematologic causes were also explored. Patient healed in four weeks only with non-steroidal anti-inflammatory drug.

DISCUSSION: Mondor's Disease is rarely related with breast cancer. This rare entity can be diagnosed with doubt and patient should be informed about it. Anti-coagulant treatment does not required if disease is idiopathic.

CONCLUSION: Mondor's Disease should be reminded at a patient with retracted breast skin.

Mondor's disease (MD) of the breast is a rare condition at breast clinics. We do not have enough data to establish its real prevalence.[1] First description was made by a French surgeon Henri Mondor with 4 cases. The main difference between Mondor's cases and the cases published before was the description of disease. Mondor described the disease as "*sub-acute subcutaneous tronculitis of the chest wall with a cord strong, thin, hard, isolated from any periphlebitis*".[2] Also thrombosis of the subcutaneous superficial vein of the penis was called as "Penil MD" in 1955.[3,4] Thereafter subcutaneous thrombosis of different places (brachial, femoral, etc.) was recognized with Mondor's name.

As a known data, most of the patients that were admitted to breast clinics are not breast cancer. Also MD is a rare entity and diagnosing this entity and informing the patient about it is very important. We present here this case to remind breast clinic practitioners that MD can be seen without trauma (neither surgical nor physical). Also clinical and radiological findings and the treatment of the MD were discussed.

1. Case report

A 35-year-old female was admitted to our breast clinic with a cutaneous retraction on her left breast since three days. She was not a smoker and had no comorbidities. There was no breast cancer anamnesis and no prevalence of thrombosis or thrombophlebitis in the patient's family history or the patient herself. No drug usage except an oral contraceptive for contraception. She only used oral contraceptives for contraception till 10 days. A palpable and visible tender cord, measuring 3–4 mm in diameter and 11 cm in length extending from lower outer quadrant of the left breast to the axilla was seen on physical examination (Fig. 1a). Cord was also caused retraction on the outer lower quadrant of left breast (Fig. 1b). No breast lump was palpated.

There were no abnormality at her whole blood count, liver enzymes, CRP and sedimentation. Prothrombin time and INR were normal too.

There was an asymmetric opacity on the ½ upper part of left breast in the bilateral mammography (Fig. 2a). Bilateral breast ultrasound showed a non-compressed vascular structure with hypo-echoic lumen (Fig. 2b). On color and power Doppler sonography no flow was observed in the vascular structure although flow

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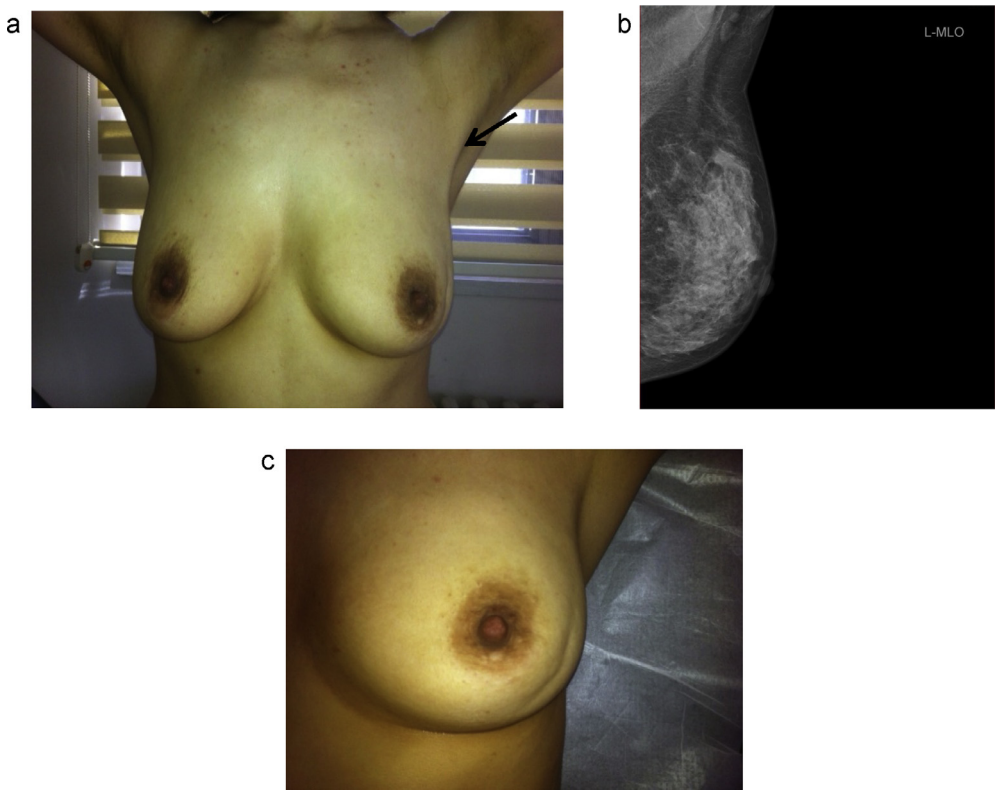

Fig. 1. Clinical findings of the patient. (a and b) Visible cord at the upper outer quadrant of left breast. (c) Retraction on left breast lower outer quadrant.

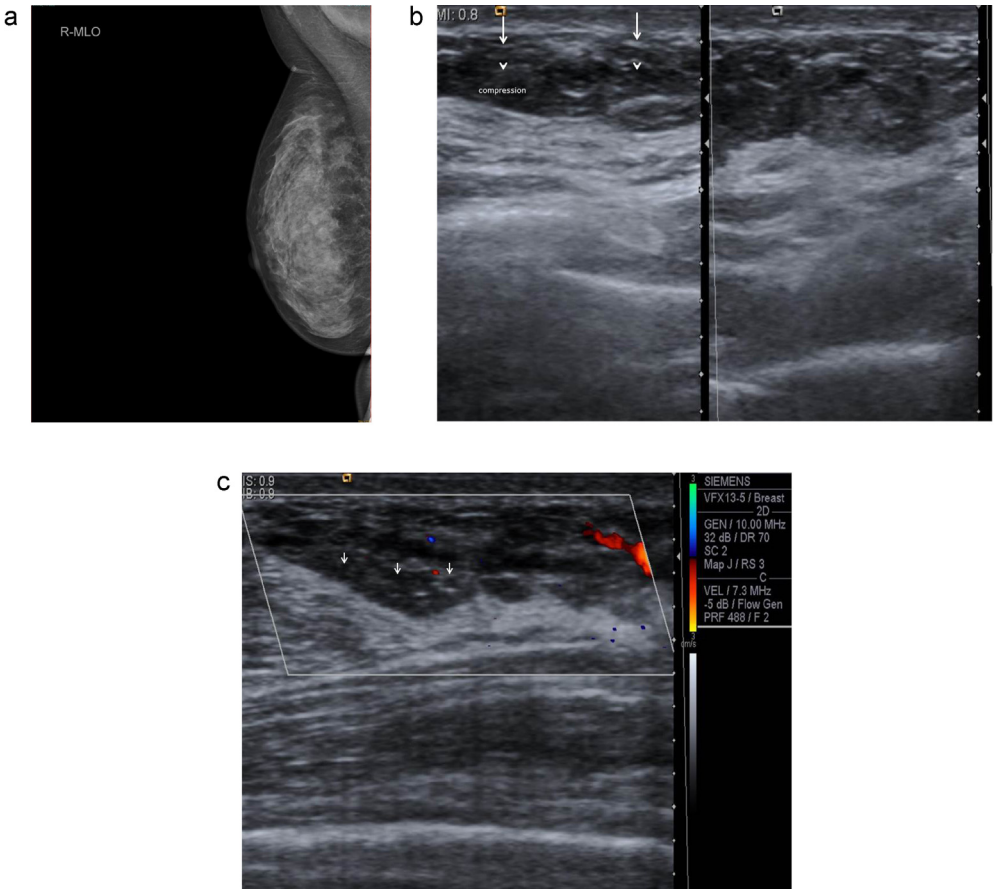

Fig. 2. Radiological findings of the patient. (a) Asymmetric opacity on the ½ upper part of left breast. (b) Non-compressed vascular structure with hypo-echoic lumen. (c) No flow was observed in the vascular structure although flow was observed in the vascular structures around it.

was observed in the arterial structures around it (Fig. 2c). Venous flow was observed at the proximal of the vascular structure.

Subsequently we consulted the patient to rheumatology clinic for rheumatologic diseases which can cause hypercoagulability and hematology clinic for the other factors of hypercoagulability. Rheumatologists were not in doubt from any rheumatologic disease on clinical examination and blood markers (Antiphospholipid IgG and IgM, Antids DNA) were normal. Antithrombin III, Protein C and Protein S levels were also normal. Genetic analyses were done for both methylentetrahydrofolate reductase and Factor V Leiden. Mutations were shown to be negative.

Patient's thrombosis was bound to her oral contraceptive usage with these findings. We decided her illness as MD and prescribed only dexketoprofen 25 mg two times a day after stopping her oral contraceptive use. Four weeks later she recovered the disease without any symptom or finding.

2. Discussion

More than 500 reports were found on Pubmed and Medline. But most of these reports were case reports and literature is lack of wide series of MD. Also various locations of MD can be found in the literature. The common sites are the chest wall,[2] brachial and femoral superficial veins[5,6] and penis.[3]

Etiology of MD differs by the location. Risk factors for penil MD were described as inguinal hernia repair, orchidopexy, excessive sexual activity, venous obstruction due to bladder distension, pelvic tumors, etc.[6]

Most cases that were located on the chest wall were traumatic and usually observed after breast surgery.[7] Recently published report analyzed four largest series of MD[1] which included 126 patients.[8–11] Forty-one of these 126 patients were idiopathic (32.5%), 11 were due to hormone therapy (8.7%), 8 were caused by breast cancer (6.3%) and 4 were caused by thrombophilia (3.1%). Rest of the patients were caused by either surgical or physical trauma (49.2%).[1] Only one literature including 8 cases that correlated MD with hormone therapy was found in the literature.[11]

Salemis's series including 5717 patients showed no breast cancer and MD relation.[12] This data also showed that MD was usually post-traumatic and idiopathic. Relation of disease with cancer was rarely reported.

Henri Mondor described the disease with a cord-like lesion on the lateral chest wall.[2] But recently cord like lesions at MD are reported after breast augmentation surgery. Especially transaxillary breast augmentation surgery is related with cord-like lesions that extend to the upper outer quadrant of the breast.[13–15]

Treatment of MD on chest wall is symptomatic and usually lesion limits itself in 2–8 weeks. But there is no consensus on the treatment. Also use of anticoagulants is not indicated.[6,16] Some authors suggest anaesthetic infiltrations around the lesions in cases with pain.[17,18] Also thrombectomy or superficial vein resection are suggested by some authors.[19]

The only drug we described was a non-steroidal anti-inflammatory drug (dexketoprofen 25 mg two times a day) and the patient was healed seamlessly.

3. Conclusion

Chest wall's MD is a rare entity and usually limits itself in a few weeks. It is hard to establish its real prevalence due to this self-limiting condition. Etiology is usually trauma or idiopathic. Practitioners should exclude the thrombophylic conditions at a patient without trauma anamnesis. Breast cancer complicated with MD is a very rare entity and usually does not require treatment.

Conflict of interest statement

None.

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Ethical approval

Written consent was obtained from the patient for this publication.

Author contributions

HK and YEE involved in writing, SY involved in analysing, ŞY involved in data collection.

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