

# Mondor's disease of breast, a rare case report

## Memenin Mondor hastalığı, nadir bir olgu sunumu

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### ABSTRACT

Mondor's disease, sclerosing thrombophlebitis of superficial veins of the anterior chest wall. It was first described by Henri Mondor in 1939. Antibiotics, steroids, anticoagulants were used in the treatment, but no significant benefit was found. Symptomatic measures are sufficient for treatment. Mondor's disease is a self-limiting benign disease. Recovery is seen between 3 weeks and 6 months. Careful research should be done in these cases as there may be occult cancers in other regions. In this case, we aimed to discuss breast disease which is a rare phenomenon with the ultrasound images of Mondor's disease to indicate the importance of ultrasound in diagnosis and follow-up.

**Keywords:** Mondor's disease, tromboflebitis, ultrasonography

### ÖZ

Mondor hastalığı ön göğüs duvarı ve meme yüzeysel venlerinin sklerozan tromboflebitidir. İlk kez 1939 yılında Henri Mondor tarafından tanımlanmıştır. Tedavisinde antibiyotikler, steroidler antikoagülanlar kullanılmıştır fakat belirgin faydası gösterilememiştir. Tedavisi semptomatiktir. Mondor hastalığı kendisini sınırlandıran benign bir hastalıktır. İyileşme 3 hafta ve 6 ay arasında gerçekleşir. Bu vakalarda memenin diğer bölgelerine ve eşlik edebilecek kanser ihtimaline karşı dikkatli bir araştırma yapılmalıdır. Bu vakada nadir bir meme hastalığı olan Mondor hastalığının tanısı ve takibinde ultrasonun önemini, hastanın ultrason bulguları ile tartışmayı amaçladık.

**Anahtar Kelimeler:** Mondor hastalığı, tromboflebit, ultrasonografi

### INTRODUCTION

Mondor's disease of the breast is a benign condition characterized by superficial thrombophlebitis of the mammary region. Anatomically, the affected veins include the lateral thoracic, thoracoepigastric and superior epigastric. Mondor's disease of the breast may present clinically as a palpable cord or a mass usually associated with pain. Mammographic evaluation is therefore, indicated in patients with suspected Mondor's disease primarily for the evaluation of a palpable finding in breast (1,2). In this case, we aimed to discuss breast disease which is a rare phenomenon with the ultrasound images of Mondor's disease before treatment and after

treatment to indicate the importance of ultrasound in diagnosis and follow-up.

### CASE

A 45-year old female patient was admitted to the clinic with a complaint of pain in her right breast for about 1 week and a palpable mass for two days. Mammography and breast ultrasonography (US) were performed to the patient who had no history of breast cancer, had regular menses and had no discharge from the nipple. In mammography, both breasts were of type C pattern and skin thickening of the upper quadrant of the right breast and a few macrocalcification of the left breast were

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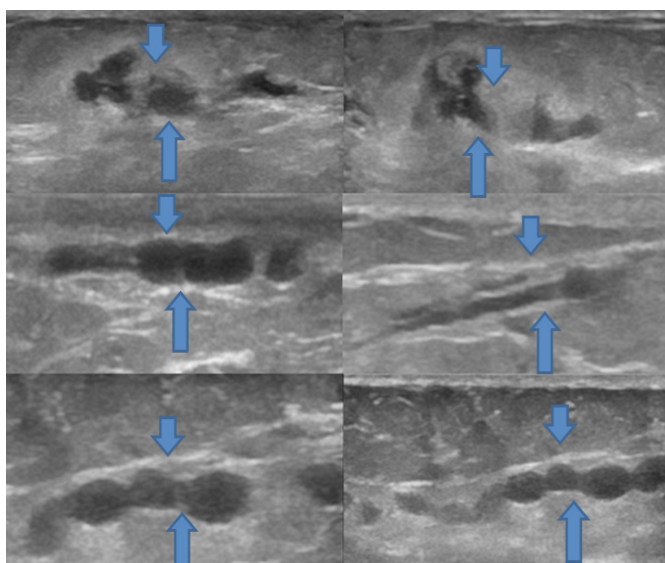
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observed (**Figure 1**). Skin thickening of the upper inner quadrant of the right breast and edema in the parenchyma were detected in breast US. Rosary bead shaped dilated veins showing superficial localization were observed in the upper outer and upper inner quadrants of the right breast. There was edema in the perivascular area and echogenic areas were observed in the vascular structure (**Figure 2a**). The patient was advised to undergo a post-treatment check with a preliminary diagnosis of Mondor's disease. WBC, CRP and sedimentation were found in normal values in blood examination. Patient was treated twice a day with antibiotic containing 875 mg amoxicillin and 125 mg clavulanic acid for 14 days. Antiinflammatory and analgesic drug were also given for treatment. The patient came for a follow-up two weeks later and an ultrasound scan was performed again.

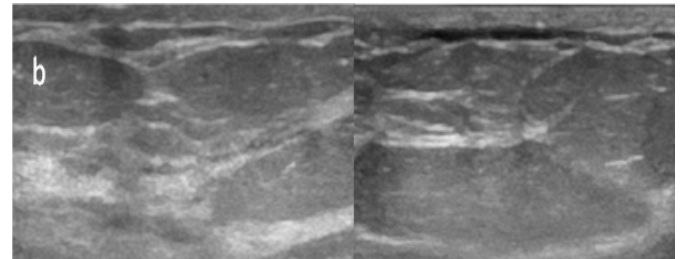


**Figure 1.** In the mammographic examination, both breasts were in the C pattern and a few macro calcifications were observed in the left breast. Skin thickening of the upper quadrant was observed in right breast.



**Figure 2a.** Rosary bead shaped dilated veins showing superficial localization were observed in the upper outer and upper inner quadrants of the right breast. There was edema in the perivascular area and echogenic areas were observed in the vascular structure compatible with thrombophlebitis.

Dilated veins which were previously located in the upper outer and upper inner quadrant of the right breast and superficially located were significantly regressed and responded to the treatment (**Figure 2b**).



**Figure 2b.** Dilated veins which were previously located in the upper outer and upper inner quadrant of the right breast and superficially located were significantly regressed and responded to the treatment.

**DISCUSSION**

Mondor's disease is a benign disease characterized by thrombophlebitis of the superficial veins of the breast and chest wall (1). The etiology is not fully elucidated. 50-60% of the diagnosed patients are idiopathic and 40-50% of the etiology can be detected. The factors that can be identified are local trauma, previous breast surgery, breast biopsy, breast cancer, breast large and drooping, crushing upper extremity exercise, narrow clothing, intravenous drug dependence (3,4). Lymphangitis, radiation exposure and shaving have also been reported in studies in the etiology (2,5). Excisional biopsy, especially in breast biopsies, is more risky in Mondor's disease. There are several studies in the literature that reported the rate of Mondor's disease as 1% after excisional breast biopsy (6). In Mondor's disease, lateral thoracic vein, thoracoepigastric vein and superior epigastric vein vein are involved (7). The disease is most commonly seen in the thoracoepigastric vein (3).

Mondor's breast disease can be clinically seen as a palpable cord or as a pain-associated mass. For this reason, mammographic evaluation is indicated for the evaluation of a palpable finding in patients with suspected Mondor's disease. In mammography, the presence of dilated tubular density that may result in biopsy is potentially confused with a dilated canal. Miller et al. (8) reported a case in which a patient had both Mondor's disease and a metastatic lymph node; at mammography, the thrombosed vessel was mistaken for a dilated duct. Although the lesion appears as a superficial, localized, tubular density on mammography, mammography may not always be diagnostic (9). There was no abnormal finding except the increase in focal skin thickness in our patient's mammography and the mammographic examination was not diagnostic.

Following mammography at US, the thrombosed vein appears as a superficially placed, long, tubular, anechoic

structure, and has a rosary beaded appearance that does not show any flow in color or spectral Doppler studies. Our patient's sonography enabled us to identify the entire course of the thrombosed vessel, which may not be visible in a mammographically dense breast.

Mondor's disease is a benign disease with conservative and symptomatic treatment. Radiological and clinical improvement was achieved within 2 weeks following symptomatic treatment applied to our patient. In the last edition, the American College of Radiology in its breast imaging reporting and data systems for breast ultrasound classified Mondor's disease under special cases ie cases with unique diagnosis (10).

## CONCLUSION

US is the appropriate imaging modality which should be preferred in the diagnosis and follow-up of Mondor's disease.

## ETHICAL DECLARATIONS

**Informed Consent:** Written informed consent was obtained from all participants who participated in this study.

**Referee Evaluation Process:** Externally peer-reviewed.

**Conflict of Interest Statement:** The authors have no conflicts of interest to declare.

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**Author Contributions:** All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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