CASE REPORT

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Bilateral Oleogranuloma of the Breast Following Self-Injection of Baby Oil: A Clinical Image

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ABSTRACT

Self-injection of non-medical substances, such as mineral or baby oil, into the breast for augmentation is an unsafe practice and can lead to serious complications. Chronic granulomatous inflammation and fat necrosis may develop, and the imaging findings may mimic breast cancer, creating diagnostic and therapeutic challenges. We present the case of an 18-year-old woman who developed bilateral breast pain and masses after self-injection of baby oil. We highlight the radiological and histopathological features and remind clinicians to consider foreign-body granulomatous reactions in the differential diagnosis of suspicious breast lesions.

Keywords: Breast augmentation; baby oil; self-injection

KEY POINTS

- Breast injection of baby oil is a rare and non-medical cosmetic practice with significant clinical consequences.
- It can lead to foreign body reactions, fat necrosis, and chronic inflammation.
- Proper clinical history is crtical to avoid misdiagnosis and unnecessary interventions.

Introduction

Esthetic concerns play a significant role in the increasing demand for breast augmentation. Silicone implants are the most commonly used method. Hydrophilic gel-based fillers (such as Aquafilling®) have also been used as non-surgical alternatives; however, serious complications, including infection, migration, deformity, and inflammatory reactions, have been reported on long-term follow-up (1, 2). Historically, non-medical substances such as paraffin, mineral oil, and baby oil have been injected into the breast, but these procedures have been abandoned because they may lead to severe granulomatous reactions and radiological findings that mimic malignancy (3-6). Patients often conceal their history of injection, which may delay diagnosis. In cases where subcutaneous oleomas develop after oil injection, patients may repeatedly deny the use of foreign material. Therefore, this diagnosis should be considered, particularly in patients with atypical and unusual radiological findings. Treatment is usually surgical, and repeated operations may be required (3-6). Awareness of this rare, but important condition is essential for proper diagnosis and management.

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Case Presentation

An 18-year-old woman presented with pain and palpable masses in both breasts. She had no history of trauma or smoking. Physical examination revealed multiple firm masses and skin ulcers in both breasts (Figure 1a). Breast ultrasound revealed bilateral diffuse thickening of the skin and edematous subcutaneous tissue, along with increased echogenicity and numerous well-defined anechoic cystic lesions with surrounding hyperechoic halos (Figure 1b). Magnetic resonance imaging showed that these cystic areas demonstrated the same signal characteristics as fat, being hyperintense on T1- and T2-weighted sequences, with marked signal loss on fat-suppressed sequences (Figure 1c-d). In addition, the glandular tissue showed marked hyperintensity on T2-weighted images, a finding consistent with edema (Figure 1d). On contrast-enhanced fat-suppressed T1-weighted images, a thin rim-like enhancement was observed around these cystic structures (Figure 1e). These findings indicated cystic lesions containing fat with surrounding inflammatory changes, supporting a foreign-body reaction. Ultrasound-guided fine-needle aspiration followed by a tru-cut core biopsy was performed from the most prominent lesion under local anesthesia (Figure 1f). The core biopsy specimen revealed multinucleated giant cells, foamy histiocytes, fat necrosis, and lymphogranulomatous inflammation, consistent with a foreign-body granulomatous reaction.

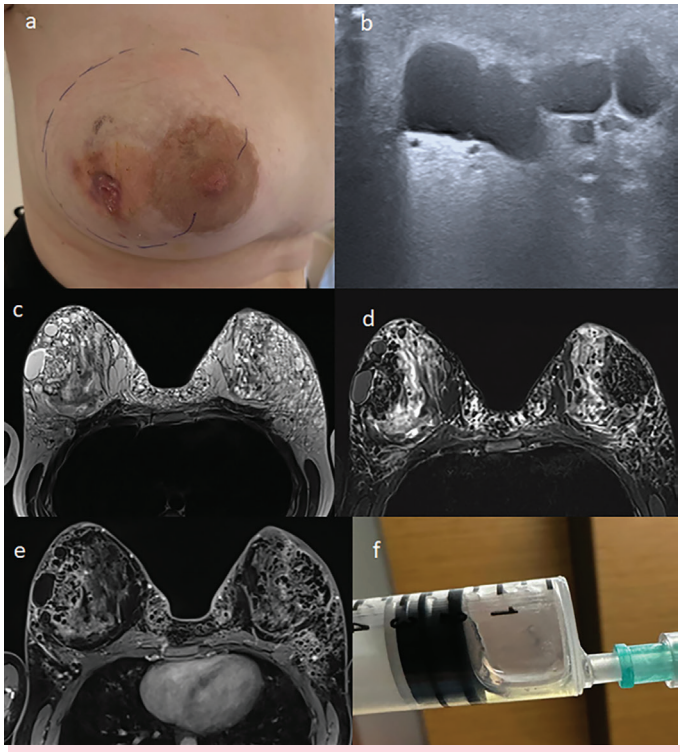

Figure 1. (a) Clinical appearance showing multiple skin ulcers and palpable masses in both breasts. (b) Ultrasound image demonstrating diffuse skin thickening, edematous subcutaneous tissue, and multiple well-defined anechoic cystic lesions with hyperechoic halos. (c-d) Magnetic resonance imaging showing cystic lesions with fat signal characteristics (hyperintense on T1- and T2-weighted images with signal loss on fat-suppressed sequences). (d) The glandular tissue shows marked T2 hyperintensity consistent with edema. (e) On contrast-enhanced fat-suppressed T1-weighted images, a thin rim-like enhancement is observed around these cystic structures. (f) Oily-appearing aspirated material obtained during ultrasound-guided aspiration

Follow-up

On further questioning, the patient admitted to having injected baby oil into both breasts for cosmetic purposes. The case was interpreted as bilateral oleogranuloma secondary to self-injection of baby oil. The patient was referred to a multidisciplinary team including breast surgeons and plastic surgeons. Surgical options, including wide debridement and even mastectomy with delayed reconstruction, were discussed in detail. However, given her young age, the extensive nature of the required surgery, and the patient's strong preference to avoid mutilating procedures at that time, a conservative approach with close clinical and radiological follow-up was chosen. Local wound care was initiated for the superficial skin ulcers, and the patient was scheduled for regular follow-up visits. During follow-up, the ulcers gradually improved, and no new suspicious masses or progressive radiological changes were observed. The patient remains under ongoing surveillance, and delayed surgical correction will be reconsidered if symptoms worsen or new complications develop.

Discussion and Conclusion

Oleogranuloma of the breast is a chronic foreign-body granulomatous reaction that may develop after injection of oily substances, such as paraffin, mineral oil, or baby oil (3-6). The clinical and radiological findings can closely mimic breast malignancy, leading to diagnostic uncertainty and sometimes unnecessary extensive surgery. Although surgical excision or mastectomy is often recommended, especially in symptomatic and extensive disease, a conservative approach with close follow-up may be considered in selected young patients after careful multidisciplinary evaluation (3-6).

In recent years, severe complications after injection of non-approved fillers and oils for breast augmentation have been increasingly reported, including chronic inflammation, infection, migration, and deformity, frequently requiring complex reconstructive surgery (3-6). In addition to the medical consequences, psychosocial factors such as body image dissatisfaction, social pressure, and misleading information shared on social media may drive young women to attempt self-injection with easily accessible substances rather than

seeking professional care (7). Increased public awareness and proper counseling are therefore essential to prevent avoidable harm and to promote safe, evidence-based options for breast augmentation.

Ethics

Informed Consent: Informed consent was obtained from the patient. All potentially identifying features have been removed from the clinical images.

Footnotes

Authorship Contributions

Surgical and Medical Practices: P.Ç.K.; Concept: Y.K.; Design: Y.K.; Data Collection or Processing: P.Ç.K.; Analysis or Interpretation: P.Ç.K.; Literature Search: Y.K.; Writing: Y.K.

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References

1. Kayadibi Y, Karagoz SH, Kargin OA, Kurt SA, Kundaktepe BP, Onur I. A rare cause of breast swelling in lactating women: Aquafilling® gel injection. Sisli Etfal Hastan Tip Bul. 2023; 57: 552-556. (PMID: 38268649) [Crossref]
2. Bingoel AS, Dastagir K, Neubert L, Obed D, Hofmann TR, Krezdorn N, et al. Complications and disasters after minimally invasive tissue augmentation with different types of fillers: a retrospective analysis. Aesthetic Plast Surg. 2022; 46: 1388-1397. (PMID: 34939150) [Crossref]
3. Koussayer B, Moffitt S, Moore MG, Kuc A, Laun J. Breast paraffinoma: a case report of 20-year-old mineral oil injection in a male patient. Eplasty. 2023; 23: e70. (PMID: 38229960) [Crossref]
4. Erguvan-Dogan B, Yang WT. Direct injection of paraffin into the breast: mammographic, sonographic, and MRI features of early complications. AJR Am J Roentgenol. 2006; 186: 888-894. (PMID: 16498126) [Crossref]
5. Han BK, Choe YH, Ko YH, Nam SJ, Yang JH. Foreign body granulomas of the breast presenting as bilateral spiculated masses. Korean J Radiol. 2001; 2: 113-116. (PMID: 11752980) [Crossref]
6. Yen Kok KY, Tripathi S, Telisinghe P. Breast paraffinoma: an obsolete but still important condition - experience with 60 cases and the literature review. Asian J Surg. 2023; 46: 321-327. (PMID: 35430153) [Crossref]
7. Hopkins ZH, Moreno C, Secrest AM. Influence of social media on cosmetic procedure interest. J Clin Aesthet Dermatol. 2020; 13: 28-31. (PMID: 32082468) [Crossref]