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Lymphangioma Circumscriptum: A Case Report

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Abstract

Lymphangioma circumscriptum is a rare benign microcystic lymphatic malformation characterized by clusters of translucent vesicles. Although it commonly affects the proximal limbs and axillary region, breast involvement is uncommon.

We report the case of a 24-year-old woman with a five-year history of a cutaneous lesion involving the left breast, associated with intermittent pruritus and clear fluid discharge. Clinical examination revealed a painless lesion located in the inferolateral quadrant of the left breast, measuring 9 cm along its longest axis and covered with multiple translucent vesicles. Dermoscopy showed pink-to-reddish lacunae separated by whitish septa, with short linear and looped vessels. Histopathological examination and magnetic resonance imaging confirmed a superficial microcystic lymphatic malformation. Complete surgical excision of the lesion was performed, with a favorable postoperative outcome and no recurrence during a two-year follow-up period.

This case highlights the uncommon occurrence of a superficial microcystic lymphangioma involving the skin of the breast. Diagnosis relies on clinical, dermoscopic, histopathological, and radiological findings. Awareness of this unusual location is essential to avoid diagnostic delay and ensure appropriate management.

Categories: Dermatology
Keywords: breast, dermoscopy, lymphangioma circumscriptum, magnetic resonance imaging, surgical excision

Introduction

Lymphangioma circumscriptum, also known as microcystic lymphatic malformation, is a rare benign lymphatic malformation involving dilated lymphatic channels predominantly located in the superficial dermis, with possible extension into the subcutaneous tissue [1]. It is characterized by clusters of translucent vesicles filled with lymphatic fluid [1]. These lesions are commonly observed in children but may also occur in adults, with late-onset cases documented in the literature, and predominantly affect the proximal limbs. Treatment varies depending on the size, location, and associated symptoms [2].

We report a case of lymphangioma circumscriptum involving the breast, an uncommon location that may pose a diagnostic challenge because of its clinical resemblance to several other cutaneous disorders. This case report aims to highlight this unusual presentation, discuss the main differential diagnoses, and emphasize the role of clinical, dermoscopic, and histopathological findings in establishing the diagnosis and guiding appropriate management.

Case Presentation

A 24-year-old woman with no significant medical history and no history of breast surgery, radiotherapy, local trauma, or previous breast infection presented with a five-year history of a cutaneous lesion involving the left breast, associated with intermittent pruritus and clear fluid discharge. Clinical examination revealed a painless lesion located in the inferolateral quadrant of the left breast, measuring 9 cm along its longest axis and covered with translucent vesicles (Figure *1A*, *1B*).

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FIGURE 1: The lesion on the lower part of the inferolateral quadrant of the left breast was topped with translucent vesicles

(A) Clinical appearance of the lesion. (B) Magnified view showing translucent vesicles overlying the lesion.

Dermoscopy showed a lacunar pattern with pink-to-reddish lacunae separated by whitish septa, as well as a vascular pattern composed of short linear and looped red vessels (Figure *2*).

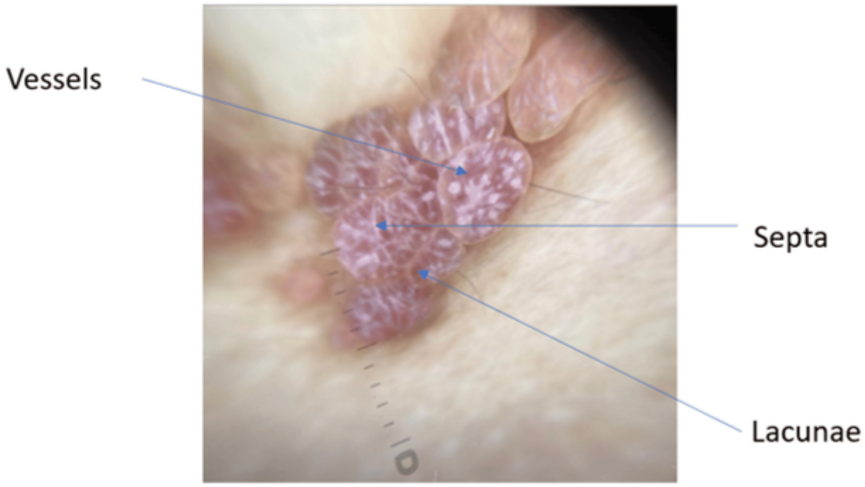


FIGURE 2: Lacunar pattern characterized by pink-to-reddish lacunae separated by whitish septa

Histopathological examination revealed a skin specimen covered by an epidermis of variable thickness, without significant maturation abnormalities. The underlying dermis was occupied by numerous clusters of dilated and malformed lymphatic vessels, variably filled with eosinophilic, acellular material and, occasionally, red blood cells. These findings were consistent with lymphangioma circumscriptum.

Magnetic resonance imaging (MRI) revealed multiloculated signal abnormalities involving the skin and superficial subcutaneous mammary fat in the inferolateral quadrant of the left breast. These abnormalities were hypointense on T1-weighted images and hyperintense on T2-weighted images, with marked enhancement following gadolinium administration. No extension to deeper lymphatic cisterns was identified. No dilatation of the lactiferous ducts was observed.

Complete surgical excision of the lesion was performed, resulting in complete remission, with no recurrence observed during a two-year follow-up period (Figure *3*).

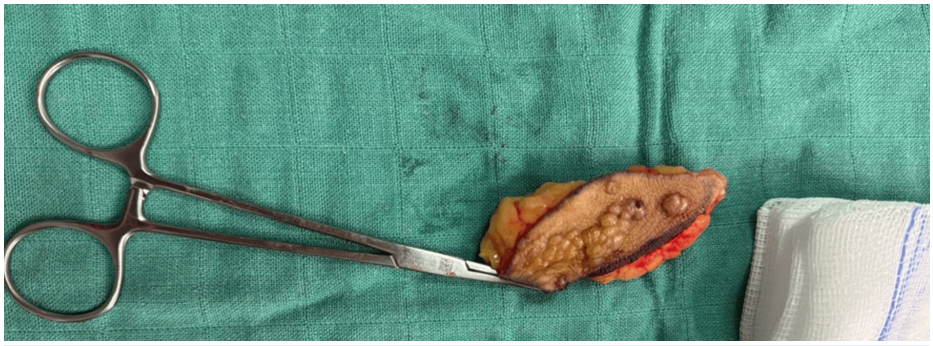


FIGURE 3: Macroscopic appearance of the lesion following complete surgical excision

Discussion

Lymphangioma circumscriptum (LC), also known as superficial microcystic lymphatic malformation, is a benign vascular malformation resulting from abnormal lymphatic development and dilation. According to the International Society for the Study of Vascular Anomalies (ISSVA) classification, lymphatic malformations are classified as vascular malformations rather than vascular tumors [3]. Whimster was the first to propose a pathogenic mechanism for LC in 1976. He hypothesized that LC results from a collection of subcutaneous lymphatic cisterns that develop during embryogenesis but remain disconnected from the lymphatic system, thereby preventing the drainage of lymph from the surrounding tissues. These cisterns are lined by a muscular layer that contracts and generates pressure, leading to the formation of protrusions on the overlying skin [4].

Lymphatic malformations are classified into microcystic (<1 cm), macrocystic (>1 cm), and mixed subtypes based on the size of the lymphatic cysts [5]. The microcystic form is clinically characterized by clusters of translucent or hazy vesicles of varying sizes, often described as having a "frog-spawn" appearance, and may also present as papules or pink hyperkeratotic plaques. Less commonly, it can manifest as diffuse swelling involving a localized area. Although often congenital, lesions can appear later in life [2]. It can occur anywhere on the skin or mucous membranes, with the most common sites being the axillary folds, shoulders, neck, proximal limbs, tongue, vulva, buccal mucosa, and scrotum [6]. Breast involvement is uncommon. To the best of our knowledge, no cases of superficial microcystic lymphangioma involving the skin of the breast have previously been reported in the literature. This unusual anatomical location makes our observation particularly noteworthy. Lesions are often asymptomatic but may lead to episodes of inflammation, infection, or bleeding from ruptured vesicles.

Dermoscopy may provide valuable diagnostic clues in lymphangioma circumscriptum. The most characteristic findings are clustered lacunae associated with vascular structures. Lacunae may vary in color according to their content, with whitish, yellowish, or light-colored areas reflecting lymphatic fluid, whereas pink or reddish lacunae may indicate the presence of red blood cells. Dark violaceous to black lacunae can occur in the setting of thrombosis. Vascular structures are also frequently observed and may reflect connections between small blood vessels and dilated lymphatic channels. Additional dermoscopic features include whitish lines separating the lacunae, which may correspond histologically to fibroplasia, and scaling, particularly in hyperkeratotic lesions, related to epidermal hyperplasia or hyperkeratosis [7].

The definitive diagnosis is generally established by histopathological examination. Histologically, lymphangioma circumscriptum is characterized by dilated lymphatic channels lined by flattened endothelial cells, predominantly located in the superficial dermis and subcutaneous tissue, with possible connections to deeper lymphatic cisterns [1]. Magnetic resonance imaging (MRI) plays a key role in determining the depth and anatomical extent of the lesion, characterizing its cystic nature (microcystic, macrocystic, or mixed), and assessing the presence of deeper lymphatic cisterns and potential compression of adjacent structures [2].

The differential diagnoses of lymphangioma circumscriptum include acquired lymphangiectasia, haemangiomas, angiokeratomas, pyogenic granulomas, angiosarcomas, cutaneous metastases, warts, and molluscum contagiosum [8]. Acquired lymphangiectasia is particularly important to consider because of its clinical and dermoscopic similarities to lymphangioma circumscriptum. It generally develops secondary to impaired lymphatic drainage, particularly following breast surgery, radiotherapy, local trauma, or infection, or in association with chronic lymphedema. Histologically, both conditions may show dilated lymphatic channels in the dermis; however, acquired lymphangiectasia represents an acquired dilatation of previously existing lymphatic vessels, whereas LC is considered a lymphatic malformation resulting from abnormal lymphatic development. In our patient, the absence of predisposing factors, such as previous breast surgery, radiotherapy, or chronic lymphedema, favors a primary lymphatic malformation over acquired

lymphangiectasia.

Evolution can include flare-ups, and although spontaneous resolution is rare, it can occur. Management depends on the type and location of the lesion. Surgical excision remains the treatment of choice for lymphangioma circumscriptum. However, several less invasive therapeutic options have also been described, including topical imiquimod, everolimus, sirolimus, bleomycin, cryotherapy, sclerotherapy, and radiofrequency coagulation. Ablative CO_2 laser therapy and suction lipectomy have also been employed, although their efficacy is variable and recurrences may occur [9].

Conclusions

Lymphangioma circumscriptum involving the skin of the breast is an uncommon presentation that can mimic other cutaneous disorders and pose a diagnostic challenge. Clinicians should be aware of this entity in adults presenting with vesicular lesions at atypical sites. Dermoscopy can provide valuable diagnostic clues, while histopathological examination confirms the diagnosis. Complete surgical excision can result in a favorable outcome.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Hajar El Hassani Taib, Yassine Berrada, Doha Jaadi, Laila Benzekri, Mariame Meziane, Samir El Mazouz

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Disclosures

Human subjects: Informed consent for treatment and open access publication was obtained or waived by all participants in this study. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

References

1. Haroon S, Hasan SH: Lymphangioma circumscriptum in the scrotum: a case report . J Med Case Rep. 2012, 6:233. 10.1186/1752-1947-6-233
2. Akazane A, Hassam B: Microcystic lymphangioma [Article in French]. Pan Afr Med J. 2014, 19:374. 10.11604/pamj.2014.19.374.3074
3. Goldenberg DC, Vikkula M, Penington A, Blei F, Kool LS, Wassef M, Frieden IJ: Updated classification of vascular anomalies. A living document from the International Society for the Study of Vascular Anomalies classification group. J Vasc Anom (Phila). 2025, 6:e113. 10.1097/JOVA.0000000000000113
4. Kandula S, Mark L, Warren S: Acquired lymphangioma circumscriptum. J Am Acad Dermatol. 2012, 66:AB41.
5. Wassef M, Blei F, Adams D, et al.: Vascular anomalies classification: recommendations from the International Society for the Study of Vascular Anomalies. Pediatrics. 2015, 136:e203-14. 10.1542/peds.2014-3673
6. Fatima S, Uddin N, Idrees R, et al.: Lymphangioma circumscriptum: clinicopathological spectrum of 29 cases. J Coll Physicians Surg Pak. 2015, 25:658-61.
7. Fajri Z, Baybay H, Soughi M, Douhi Z, Elloudi S, Mernissi FZ: Dermoscopy of lymphangioma circumscriptum. Sch J Med Case Rep. 2024, 12:1533-5. 10.36347/sjmcr.2024.v12i09.006
8. Bouabdella S, Essaddouki S: Dermoscopy of lymphangioma circumscriptum: diagnostic value-a report of 7 cases [Article in French]. Ann Dermatol Venereol. 2022, 1:260. 10.1016/j.fander.2022.09.429
9. Shrestha S, Shrestha R, Manandhar M: Lipectomy for symptomatic relief of lymphangioma circumscriptum . J Clin Aesthet Dermatol. 2020, 13:45-8.