



CLINICAL IMAGE

Cutaneous Lymphangioma Circumscriptum: Seeing Closer

Marcela de Oliveira Pires^{1*}, Leonor Aires Figueiredo² and Cristina Amaro³

¹Department of Pediatrics, Hospital São Francisco Xavier, Centro Hospitalar Lisboa Ocidental, Lisbon, Portugal

²Department of Pediatrics, Hospital do Espírito Santo, Évora, Portugal

³Department of Dermatology, Hospital de Egas Moniz, Centro Hospitalar Lisboa Ocidental, Lisboa, Portugal

*Corresponding author: Marcela de Oliveira Pires, Department of Pediatrics, Hospital São Francisco Xavier, Centro Hospitalar Lisboa Ocidental, Rua Pio XII, 8, 2° esquerdo, 2700-657, Amadora, Portugal, Tel: +351915949656



Keywords

Lymphangioma circumscriptum, Vesicles, Microcystic lymphatic malformation

Description

A previously healthy seven-year-old female presented to the Pediatric Dermatology clinic with multiple, grouped, red fluid-filled lesions on the left side of the torso, that appeared about one month earlier. No other symptoms, such as pain, pruritus or fever were present.

Physical examination revealed a small cluster of vesicles measuring about 2-4 mm, containing clear serum and serohematic fluid (Figure 1). Dermoscopy (polarized, 10x) revealed well-circumscribed roundish areas (lacunae) surrounded by pale septa (Figure 2). These lacunae were white-yellowish to pink, with dark red homogeneous spots due to the presence of blood (hypopyon-like features) and linear and thin vessels (Figure 2); the larger lacunae were fully dark red (Figure 2).

Discussion

According to the literature, the presence of lacunae and hypopyon-like features, associated with vascular structures are suggestive of lymphangioma circumscriptum.

Lymphangioma circumscriptum (LC), also called microcystic lymphatic malformation, is a benign tumor of the lymphatic system. LC occurs due to the

presence of dilated muscle-coated lymphatic cisterns in the subcutaneous plane with communication to the large dermal lymphatics, forming vesicles [1]. Characteristically, LC appears as clusters of translucent cutaneous vesicles, ranging from 2 to 4 mm, mimicking frog spawn [1-3]. Vesicles may contain pink, red, or black discoloration, resulting from underlying hemorrhage [1,3,4].

LC may be present at birth or appear in the first years of life [4]. The most frequent localizations are the proximal extremities, trunk, axilla, and the oral cavity [2]. LC is mostly asymptomatic, the most common symptom being the drainage of serous fluid, sometimes mixed with blood, which occurs spontaneously or following minor trauma [1,4].

Dermoscopy is a non-invasive technique that plays a major role in lymphangioma circumscriptum diagnosis, improving its accuracy. Dermoscopic examination shows a lacunar and saccular pattern, with the presence of multiple grouped translucent brown lacunae separated by pale septa. Depending on the content of blood, various dermoscopic features may be present, such as focal reddish areas, pink diffuse coloration and reddish to violaceous lacunar structures [2-5]. A color transition from dark to light has been observed in some lacunae with dense erythrocyte extravasation, and has been termed hypopyon-like feature [5]. This feature has been proposed as a dermoscopic clue, particularly useful in the differential diagnosis of LC from hemangioma [3,5].

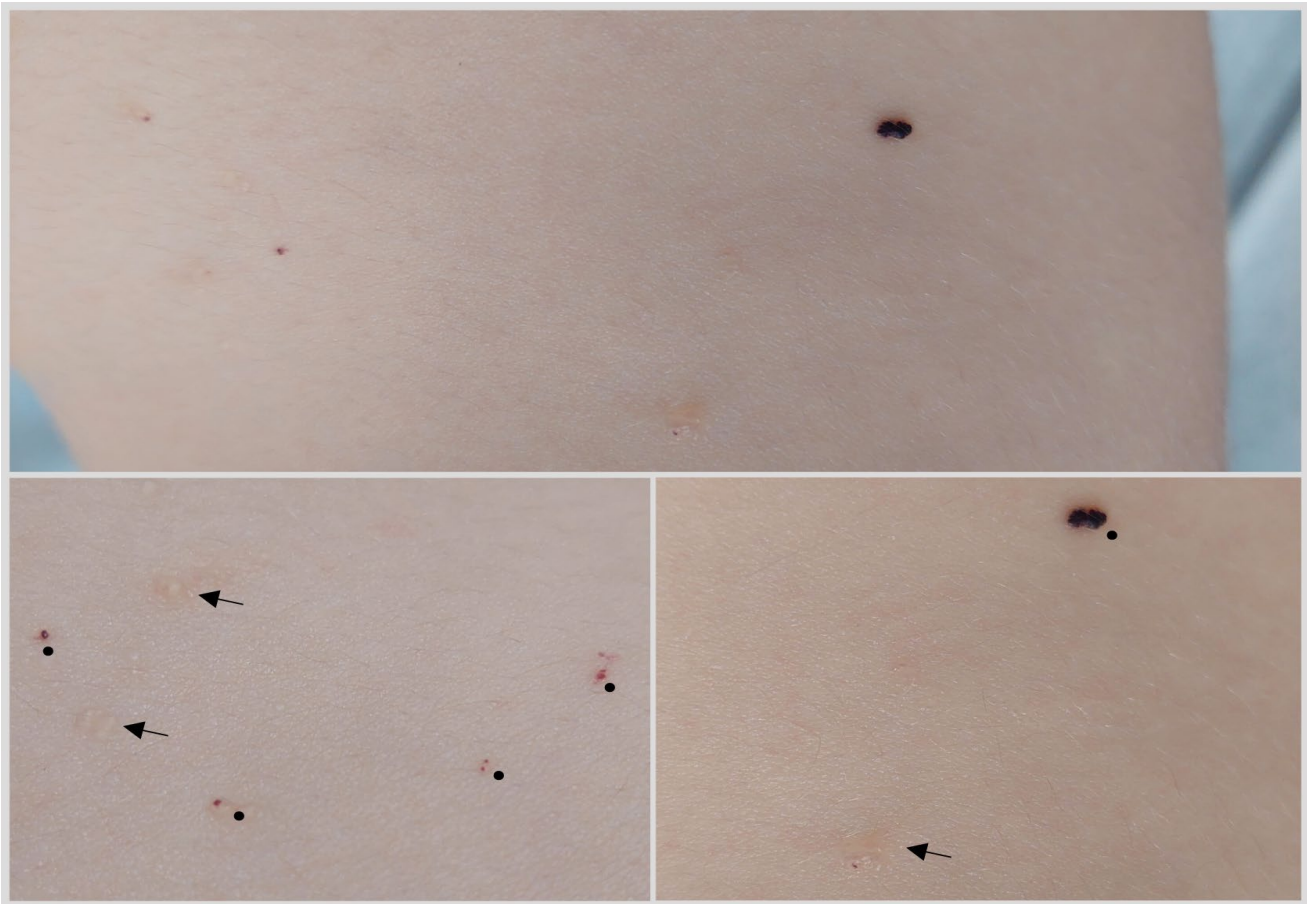


Figure 1: Small cluster of vesicles about 2-4 mm, containing clear serum (arrow) and serohematic fluid (dot).

Source of Funding and Conflict of Interest Statement

None.

Statement of Equal Authors' Contribution

All authors contributed equally in the writing of this manuscript.

References

1. Kudur MH, Hulmani M (2013) Extensive and invasive lymphangioma circumscriptum in a young female: A rare case report and review of the literature. *Indian Dermatol Online J* 4: 199-201.
2. Patel GA, Schwartz RA (2009) Cutaneous lymphangioma circumscriptum: Frog spawn on the skin. *Int J Dermatol* 48: 1290-1295.
3. Massa AF, Menezes N, Baptista A, Moreira AI, Ferreira EO (2015) Cutaneous Lymphangioma circumscriptum - dermoscopic features. *An Bras Dermatol* 90: 262-264.
4. Dominguez VG (2012) Dermoscopy of Lymphangioma Circumscriptum Neviforme - a case report. *Journal of the Portuguese Society of Dermatology and Venereology* 70: 369-362.
5. Gencoglan G, Inanir I, Ermertcan AT (2012) Hypopyon-like features: New dermoscopic criteria in the differential diagnosis of cutaneous lymphangioma circumscriptum and haemangiomas? *J Eur Acad Dermatol Venereol* 26: 1023-1025.

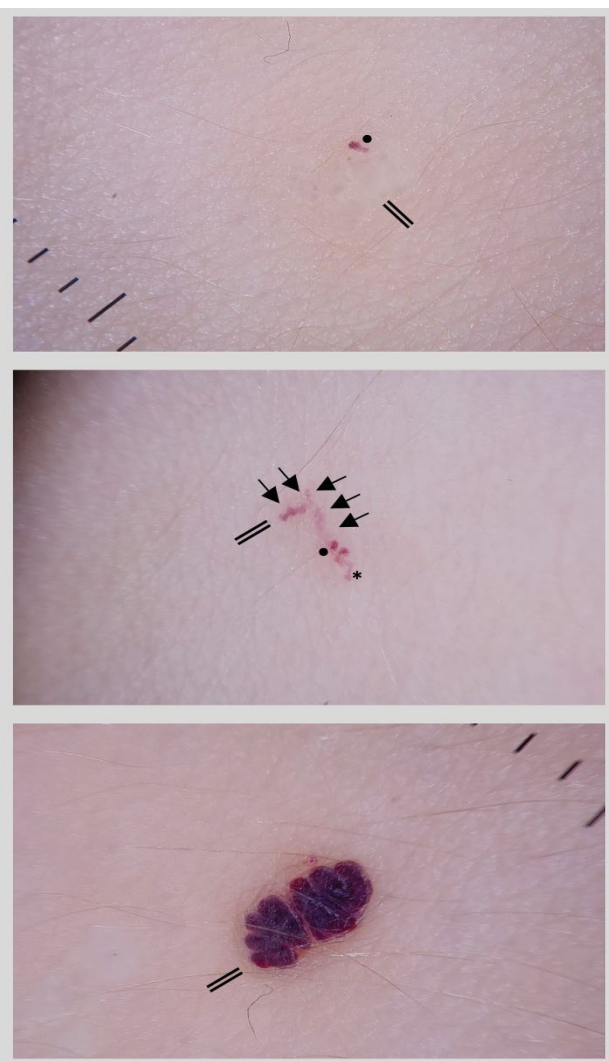


Figure 2: Dermoscopy (polarized, 10x): Well-circumscribed roundish areas (lacunae) surrounded by pale septa (double line). Presence of hypopyon-like features with lacunae white-yellowish to pink (arrows), with dark red homogeneous spots (dot) and linear and thin vessels (asterisk).