

Figure 3. Histopathology revealed perifollicular fibrosis. The extravasated erythrocytes were distributed around the follicle, in areas where the dermis was looser. Note the hair shaft sectioned at different levels inside the follicle (hematoxylin-eosin, $\times 40$).

Because scurvy was suspected, plasma ascorbic acid levels were measured and found to be noticeably low (<0.1 mg/dL; normal range, 0.2-0.4 mg/dL), thereby confirming the diagnosis. The patient responded extremely well to oral treatment with vitamin C and nutritional supplements of fruits and vegetables; the skin lesions disappeared

within 15 days and his overall health improved noticeably.

The peculiar pale orange halo observed on dermatoscopy could be explained as the result of the usual changes observed in the violaceous lesions once the extravasated erythrocytes began to be reabsorbed. Such reabsorption might start near the follicle, explaining the presence of the orange halo as a temporary finding within a dynamic process. Against this explanation was the fact that the patient had still not started treatment or experienced clinical improvement as a result. We felt that a correlation between the dermatoscopic image and histopathologic findings was more likely. The perifollicular fibrosis observed in our patient would have rejected or prevented erythrocyte accumulation in the area and both factors (fibrosis and absence of erythrocytes) would explain the pale orange halo mentioned. Beyond the fibrosis area, the dermal collagen would be looser and so allow erythrocytes to accumulate, producing hemorrhagic lesions at the periphery of the pale orange area.

We therefore believe that this dermatoscopic observation is not without importance, but could be correlated with the histopathologic findings. If confirmed, the observation could allow chronic and acute scurvy to be distinguished through a clinical sign. There is no reason why acute scurvy would be associated with such a halo, since the perifollicular fibrosis that determines this dermatoscopic sign would not have developed. However, more observations are needed to confirm the validity of this observation.

References

1. Valdés F. Vitamina C. *Actas Dermosifiliogr.* 2006;97:557-68.
2. Roe E, Dalmau J, Peramiquel L, Puig L, Alomar A. Escorbuto: púrpura folicular como signo guía. *Actas Dermosifiliogr.* 2005;96:400-2.
3. Leggett J, Convery R. Scurvy. *N Engl J Med.* 2001;345:1818.
4. Walters RW, Grichnik JM. Follicular hyperkeratosis, hemorrhage, and corkscrew hair. *Arch Dermatol.* 2006;142:658.

Single Reticulohistiocytoma Mimicking a Keratoacanthoma

F. Guerrero,^a G. Rouston,^a and E. Tejerina^b

^aServicio de Dermatología and ^bServicio de Anatomía Patológica, Hospital Universitario Puerta de Hierro, Madrid, Spain

To the Editor:

Reticulohistiocytosis is a rare form of presentation of non-Langerhans cell histiocytosis.¹ It has a broad spectrum of presentation, from a single nodular cutaneous lesion (solitary cutaneous reticulohistiocytosis) or multiple lesions (multiple cutaneous reticulohistiocytosis), to more aggressive forms with multiple lesions and joint involvement (multicentric reticulohistiocytosis),

associated with an internal neoplasm in a significant number of patients.² We describe the case of a solitary reticulohistiocytoma seen in our department.

A 23-year-old man with no relevant personal or family history came to our dermatology department in February 2007 because of a nodular lesion that had appeared on the lateral aspect of the right third finger 6 months

previously; the lesion had been gradually growing and was painful to touch. The examination revealed a dome-shaped nodule of firm consistency, reddish-violaceous and approximately 1 cm in diameter, with a somewhat umbilicated and keratotic center, which resembled a keratoacanthoma (Figure 1). The lesion was removed surgically; the histopathologic study showed a well-

delimited, nonencapsulated lesion centered in the dermis and lined with nonulcerated epidermis, that also presented moderate cell proliferation composed of large histiocytic cells with abundant eosinophilic cytoplasm of “ground glass” appearance and rounded or oval nuclei with prominent intensely eosinophilic nucleoli (Figure 2). No type of atypia, necrosis, or mitosis was observed. The oncocytic cells were accompanied by an inflammatory infiltrate of lymphocytes, eosinophils, and polymorphonuclear neutrophilic leukocytes. Immunohistochemistry was positive for factor XIII, CD68, vimentin, and 1-antitrypsin. S-100 staining was negative. Since his first visit, the patient has remained asymptomatic and presented no signs of relapse at the time of writing.

Solitary reticulohistiocytoma was first described by Zak³ in 1950. It is characterized by a usually asymptomatic, well-delimited papule or nodule with a smooth surface, of 0.3 to 2 cm in diameter. The lesions are of firm consistency and variable color, ranging from yellow to reddish-brown. They can appear on any part of the body.⁴ Some authors report that the lesions are less common on the face and the fingers or toes, unlike multicentric reticulohistiocytosis, although others have observed it most often on the face and neck.⁵ It is more common in young adults and slightly more predominant in men. The development of reticulohistiocytosis in areas of traumas has been described, but most cases

appear spontaneously. The lesions are benign, self-limiting, and rarely recur after surgical removal.

Histologically, the lesions are characterized by a mixed infiltrate of eosinophilic epithelioid histiocytes with abundant glassy cytoplasm, multinucleated cells, and other inflammatory cells. The infiltrate reaches the reticular dermis, and frequently the subcutaneous tissue. Isolated Touton-type cells with lipids in the interior are occasionally observed. The epidermis tends to be somewhat hyperplastic and hyperkeratotic, and ulceration is rare.⁶ In the immunohistochemical study, the cells are positive for factor XIIIa and CD68 but negative for CD1a and CD34. S-100 staining tends to be negative, although isolated cases of positive findings for this marker have been described. Clinical differentiation from other histiocytic and granulomatous processes, such as multicentric reticulohistiocytosis, is important due to the possibility of systemic involvement and associated risk of malignancy. Although solitary reticulohistiocytomas present similar histopathologic findings, they tend to have a higher neutrophilic and eosinophilic component in the infiltrate and the stroma tends to contain numerous fusiform cells, some of them xanthomized (Table). The lesion may also be difficult to differentiate clinically and histopathologically from solitary adult xanthogranuloma, although lipidized



Figure 1. Nodule of crateriform surface on the finger.

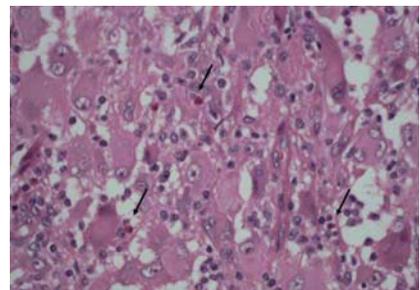


Figure 2. Histiocytic cells of abundant cytoplasm resembling ground glass with intermingled eosinophils (arrows). Hematoxylin-eosin, ×100.

histiocytes and the presence of Touton-type cells in the latter are characteristic, with the accompanying mixed infiltrate having fewer eosinophilic cells.⁷ Rarely, a solitary reticulohistiocytoma may be confused clinically with another type of nonhistiocytic neoplasm. In our patient, the somewhat keratotic appearance of the surface and its crateriform shape were clearly similar to those of a keratoacanthoma,

Table. Clinical Characteristics and Laboratory Findings for the Various Forms of Reticulohistiocytosis

	<i>Solitary Cutaneous Reticulohistiocytosis</i>	<i>Multiple Cutaneous Reticulohistiocytosis</i>	<i>Multicentric Reticulohistiocytosis</i>
Number of lesions	Single	Multiple	Multiple
Distribution	Head and neck, trunk, legs	Diffuse	Limbs, face, mucosae
Arthritis	Absent	Absent	Present
Malignancy	No	No	Yes, 25%
Internal organ involvement	No	No	Yes
Laboratory values	Normal	Normal	Abnormal

something not previously described in solitary reticulohistiocytoma or any other histiocytic process, except for 2 cases of benign fibrous histiocytomas in the facial region.⁵ The etiology of solitary reticulohistiocytoma is unknown. It is considered a reactive process, rather than a true neoplasm. Some authors advocate changing the name of this entity from reticulohistiocytosis, which they consider somewhat archaic, to solitary epithelioid histiocytoma, since it would more accurately reflect the cytomorphology and immunophenotype of this entity.⁸

References

1. Vázquez-Bayo MC, Rodríguez-Bujaldón A, Jiménez-Puya R, Galán M, Vélez A, Moreno JC, et al. Reticulohistiocytosis cutánea difusa. *Actas Dermosifiliogr*. 2006;97:118-21.
2. Toporcer MB, Kantor GR, Benedetto AV. Multiple cutaneous reticulohistiocytomas (reticulohistiocytic granulomas). *J Am Acad Dermatol*. 1991;25: 948-51.
3. Zak FG. Reticulohistiocytoma ('ganglioneuroma') of the skin. *Br J Dermatol*. 1950;62:351-5.
4. Cobb MW, Barber FA. Solitary papule on the forearm. Solitary reticulohistiocytoma. *Arch Dermatol*. 1990;126: 667, 669-70.
5. Morris SR, DeSousa JL, Barrett AW, Malhotra R. Benign fibrous histiocytoma of the eyelid mimicking keratoacanthoma. *Ophthalm Plast Reconstr Surg*. 2007;23:73-5.
6. Zelger BW, Sidoroff A, Orchard G, Cerio R. Non-Langerhans cell histiocytoses. A new unifying concept. *Am J Dermatopathol*. 1996;8:490-504.
7. Navajas B, Eguino P, Trébol I, Lasa O, Gardeazábal J, Díaz-Pérez JL. Xantogranuloma múltiple del adulto. *Actas Dermosifiliogr*. 2005;93:171-4.
8. Miettinen M, Fetsch JF. Reticulohistiocytoma (solitary epithelioid histiocytoma). A clinicopathologic and immunohistochemical study of 44 cases. *Am J Surg Pathol*. 2006;30:521-8.