**INTRODUCTION**

A 14-year-old boy was referred to us because of an irregularly bordered, erythematous alopecic patch of the posterior scalp for 1 year [Figure 1]. The patch was completely devoid of hair and no symptom was reported. He was otherwise healthy and no other patch was noticed in the scalp or other body areas. He was, apparently, the only family member with such a clinical presentation. A previous dermatological consultation excluded tinea capitis (negative fungal culture) and a burn or a scar. No trauma was, in fact, reported in that area. A probative treatment with topical steroids (mometasone furoate once a day overnight) from a previous consultation reported no beneficial effects after 3 months. The clinical examination of the patch revealed cicatricial tissue in the center and a slight tenderness at the borders. A negative pull test, unspecific trichogram, and dermoscopy [Figure 2] lead us to perform a 4-mm punch biopsy [Figure 3a and b].

**What is the diagnosis?**

Childhood discoid lupus erythematosus of the scalp.

**ADDITIONAL STUDIES**

The histology showed, at the horizontal section, perivascular, perifollicular, and perieccrine lymphocytic infiltrate in the follicular unit. No sebaceous glands were observed [Figure 3a]. Vertical section revealed superficial and deep perivascular lymphocytic infiltrate in the dermis and vacuolar alteration at the dermoepidermal junction. The infiltration pattern with periannexal infiltrates is compatible with LED. The interface dermatitis in the junctional zone of a rather atrophic epidermis fits well this diagnosis [Figure 3b]. Alcian blue stain revealed slight deposits of mucin around eccrine ducts and vellus follicles. Weigert stain (elastic stain) showed diffuse scarring throughout the dermis. Due to its high sensitivity, direct immunofluorescence (DIF) is generally useful to distinguish lupus from lichen planopilaris in uncertain cases,[1] however, in this case, it has not be performed due to the clear clinicopathological correlations.

The boy was then screened with a complete blood cell count, liver and renal function tests, antinuclear antibodies, anti-native DNA antibodies, and joint assessment. Urine analysis was also performed. Everything was within the normal ranges and systemic involvement was then ruled out. The mother and the father of the patient were also screened and they were healthy. The mother was already known to have Hashimoto thyroiditis. No autoimmune disorder was reported in other family members.

The patient started treatment with 0.05% clobetasol propionate cream once a day overnight. The healthy status of the patient, the poor discomfort related to the plaque, and its apparent stability made us decide for topical steroids rather than oral antimalarials or systemic steroids.[2] During the day, he was suggested to avoid sun exposure. A strict follow-up has then been planned with a dermatological consultation every 3 months and a systemic screening once a year.

**DISCUSSION**

Discoid lupus erythematosus (DLE) is very rare in children, even more than in adults. According to literature, the incidence of this disorder in children is <2%.[3,4] As in adults, childhood DLE is associated with active inflammatory lesions (erythema, edema, telangiectasia), scaling with follicular plugging and atrophy. Itching, burning, and tenderness are usually the main symptoms. Contrary to adults, instead, it has been reported with a male predominance, less photosensitivity, and a more frequent progression to systemic LE, independently of the place and extent of the disease. When systemic LE occurs in children, it is usually more aggressive.[5] Risk factors leading to systemic LE are not completely clear; however, a positive family history for autoimmune disorders, photosensitivity, and positive serologic findings are considered negative factors.[6]

Sarcoidosis, lymphoma, and lichen planus were the main clinical differential diagnoses; however, they have all been ruled out with the skin biopsy.
In this case, dermoscopy has not been helpful. The red dot pattern (widened infundibula plugged by keratin and surrounded by dilated vessels and extravasated erythrocytes),\(^7\) usually representative and very helpful in the differential diagnosis from other forms of cicatricial alopecia so as in finding the right place where performing the biopsy, was in this case not present probably because of an inactivity of the plaque.

The skin biopsy and a strict follow-up are mandatory in these patients because two are the main risks: to develop a generalized DLE (lesions below and above the neck) or a systemic LE with nephritis, arthritis, vasculitis, so as central nervous system lupus. Ideally, two 4-mm punch biopsies should be performed, one from an area of active disease and one from an area of more advanced hair loss. In this way, the pathologist will have enough material for horizontal and vertical sections, so as for DIF studies.

The management of DLE is very distressing both for the clinician and the patient. The time required to achieve results, if any, is very long. The incidence of relapses is very high and literature is very poor of randomized controlled trials: The majority of studies, in fact, only refer to case series or probatory treatments. Moreover, etiopathogenetic mechanisms underlying this condition are not fully understood and the clinicopathological correlations are sometimes inaccurate (especially in late stages) making the diagnosis difficult. Early diagnosis should be the main goal for a dermatologist. The main objective of any medication should be the arrest of inflammation and further hair loss.

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**Conflicts of interest**

There are no conflicts of interest.

**Matilde Iorizzo, Cosimo Misciali\(^1\), Sandra Lorenzi\(^2\)**

Private Dermatology Practice, Bellinzona, Switzerland, \(^1\)Department of Experimental, Diagnostic and Specialty Medicine, Section of Dermatology, University of Bologna, Bologna, \(^2\)Dermatological European Institute, Milan, Italy

E-mail: matildeiorizzo@gmail.com

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