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Case Report

Eruptive Nevus Following Rituximab Treatment: Unusual Dermoscopic Presentation: A Case Report

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Abstract

Background: Eruptive nevi can occur following various conditions, including the use of immunosuppressive and immunomodulatory drugs such as biologics. Dermoscopy typically reveals a pattern of brown globules arranged in a ring at the periphery. We report a case of eruptive nevus with an atypical dermoscopic pattern in a patient receiving Rituximab. Observation: A 37-year-old female patient, followed for acquired bullous epidermolysis, developed pigmented and extensive macules six months later. Dermoscopy of a lesion on the trunk, which was increasing in size, showed a homogeneous brown pattern with irregularly arranged brown globules and dots at the center and periphery. Biopsy revealed a junctional nevus. Conclusion: The atypical brown pattern on dermoscopy of eruptive nevi is described for the first time, particularly after rituximab therapy.

Keywords: Dermoscopy; Atypical Dermoscopic Pattern; Immunosuppression; Rituximab Treatment

Introduction

Nevi are benign and common melanocytic tumors that can be congenital or acquired. They are to be distinguished from eruptive nevi, which can be defined as the sudden appearance of nevi following certain conditions, namely immunosuppression as seen in renal transplant recipients' bullous eruptions such as Stevens-Johnson syndrome, Lyell syndrome, erythema multiforme and autoimmune bullous dermatoses as well as following certain therapeutic agents like immunosuppressants, biologics and chemotherapy [1-6]. The dermoscopic aspect of nevi is well established [7]. However, there are only a few case reports regarding the dermoscopy of eruptive nevi in the post-treatment setting or in the aftermath of bullous dermatoses. The typical aspect noted in eruptive nevi following immunosuppressive treatments is a ring-like arrangement of brown globules at the periphery of the lesion [1,8]. We report the case of a patient who presented with eruptive nevi following Rituximab administration, with dermoscopy revealing an atypical pattern.

Case Report

A 66-year-old female patient consulted with neck and facial pain and postvesicular erosions, which had been developing abruptly for about 10 days with no particular pathological history. On physical examination, the facial oedema was more marked on the right hemiface, with an erosive patch extending from the auricle to the chin in a band, not extending beyond the midline, with Observation The patient is a 37-year-old woman with no significant medical history, who has been followed since 2017 for acquired bullous epidermolysis diagnosed based on clinical and histological criteria. She underwent several therapeutic protocols: dapsone, corticosteroid boluses and was then treated with Rituximab combined with 0.5 mg/kg/day of Prednisone.

Locally, she received care with silver sulfadiazine. There was a remarkable improvement with the healing of all erosions (Fig. 1) and the appearance, six months later of brown macules of varying sizes and shapes diffusely distributed on the trunk and extremities (Fig. 1). Additionally, an accentuation of pigmentation and an increase in size, as well as irregular contours, were noted in a pigmented lesion on the trunk (Fig. 1). Dermoscopic examination of this lesion revealed a homogeneous brown pattern with irregular contours, along with irregularly arranged brown dots and globules at the center and periphery of the lesion (Fig. 1). Given this appearance, considerations included post-Rituximab nevus eruption, nevi associated with bullous epidermolysis, melanoma or dysplastic nevus. A biopsy was performed, showing a basal lentiginous melanocytic proliferation with small nests in the dermis (Fig. 2). Immunohistochemical study demonstrated positivity for Melan-A and negativity for HMB45 (Fig. 2), leading to a diagnosis of junctional nevus. The patient was reassured.

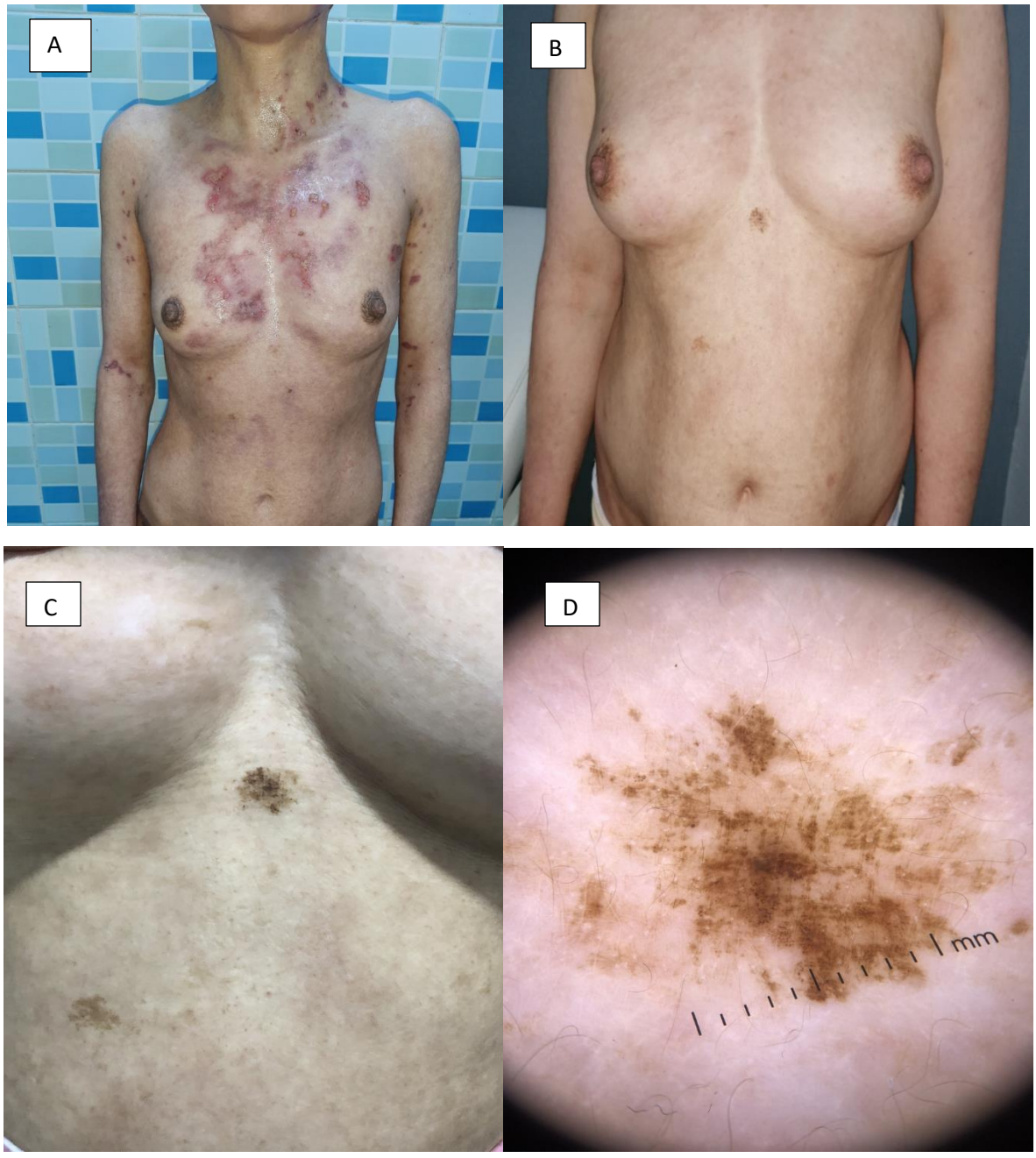

Figure 1: a: Patient before rituximab treatment, presenting a flare-up of her bullous dermatosis; b: After rituximab therapy, presence of a brown macule on the trunk; c: Irregularly contoured brown macule with an indistinct and uneven border; d: Dermoscopy: Irregular brown peripheral network associated with irregular brown dots and globules.

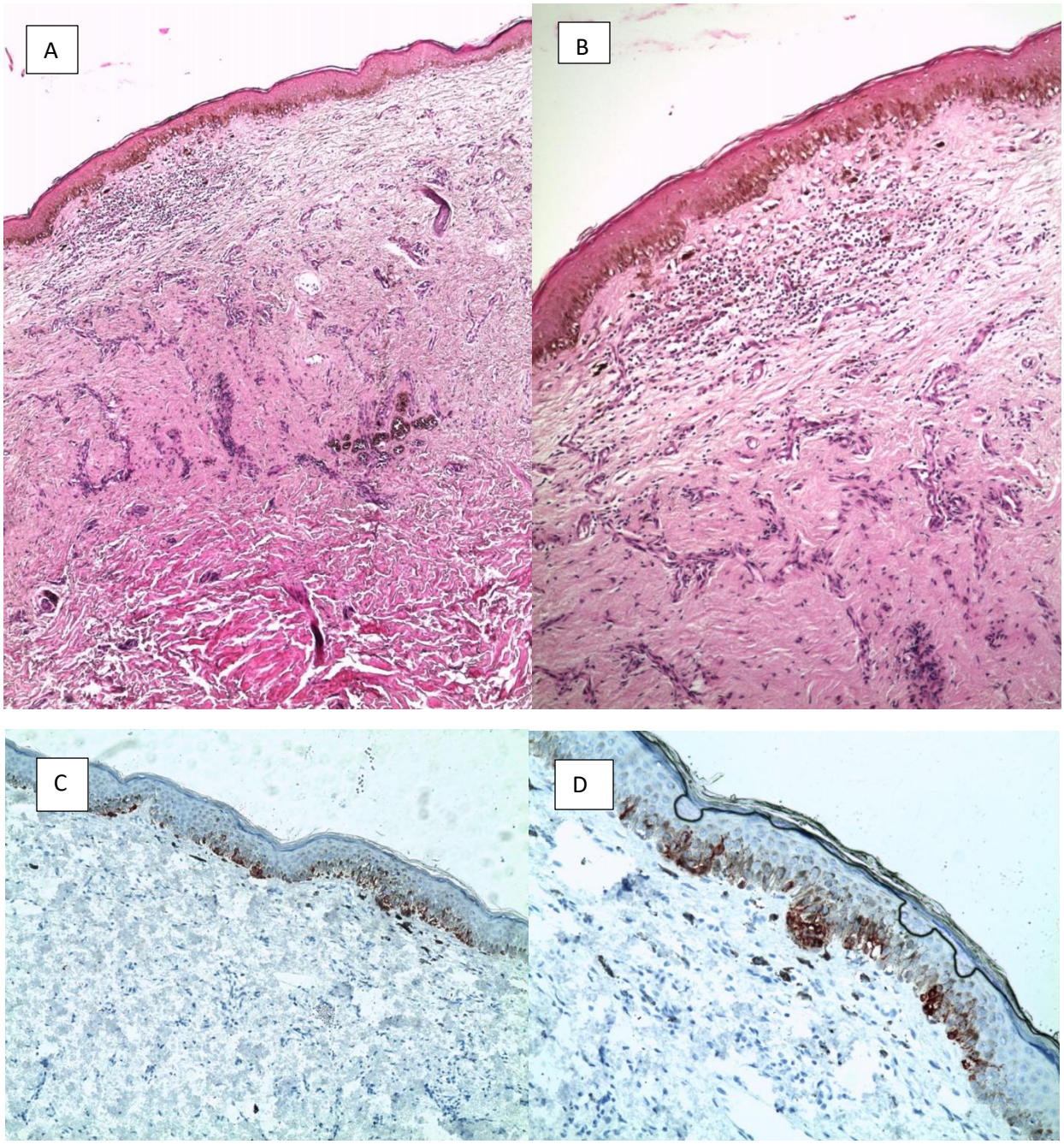

Figure 2: a: H&E stain at 50x magnification reveals a predominantly lentiginous basal melanocytic proliferation, with the superficial dermis displaying a mononuclear inflammatory infiltrate with melanophages. This is underlined by fibrosis, edema and candle-like neovascularization pushing down pigmented melanocytic nests; b: H&E stain at 100x magnification; c: 100x magnification, where Melan A marks junctional and dermal melanocytes; d: 400x magnification, demonstrating a maturation gradient in the dermal proliferation not labeled by HMB45 (what appears is melanin pigment).

Discussion

Eruptive melanocytic nevi were first described by Hutchinson in 1868 [9]. This term is generally used to describe the sudden development of multiple nevi within weeks to months following triggering events such as bullous dermatoses, including toxic epidermal necrolysis or Stevens-Johnson syndrome, autoimmune bullous dermatoses and also in the context of immunosuppression in renal transplant recipients, bone marrow transplantation or with the use of immunomodulatory or immunosuppressive drugs. In the latter case, reported therapeutic agents include immunosuppressants such as azathioprine,

corticosteroids and methotrexate, biological treatments like etanercept, infliximab and BRAF inhibitors. Currently, there are only a few case reports documenting certain clinical and dermoscopic characteristics of these manifestations [10,11]. Nevus eruptions observed after the use of certain treatments still lack precise diagnostic criteria. These nevi often appear on the trunk and extremities in young adults and are characterized dermoscopically by the presence of globules arranged in a ring at the periphery of the lesion, which was not the case with our patient [1,6,8,12].

Histologically, they are often compound nevi and rarely dysplastic nevi [1,12]. The junctional subtype occurring after Rituximab intake is, to our knowledge, described for the first time. The pathophysiological explanation for this type of post-treatment nevus eruption is related to the systemic immunosuppression caused by the immunomodulatory or immunosuppressive drug, thus stimulating melanocytic proliferation through certain growth factors [1,6,8,12].

Moreover, nevi occurring in the course of bullous epidermolysis are large, brown lesions, asymmetrical and often irregularly pigmented, located on old sites of the disease, which was not the case with our patient [4]. Dermoscopy reveals a multi-component pattern, irregular dots and globules, hypo- and hyper-pigmented areas, as well as a vascular pattern consisting of milky red areas, comma-shaped vessels and glomerular vessels. These nevi are believed to be due to the presence of floating melanocytic cells in the fluid of one of the vesicles of bullous epidermolysis and after randomly attaching to the edge of a vesicle, they proliferate significantly at the epidermal level [4].

The significance of our case lies in its clinical uniqueness with the occurrence of nevi following Rituximab, not reported before and the atypical dermoscopic pattern described for the first time in post-immunomodulatory treatment nevus eruptions. We ruled out a nevus in the context of bullous epidermolysis because the clinical and dermoscopic aspects did not match. Skin biopsy also excluded iatrogenic pigmentation post-silver sulfadiazine.

Conclusion

Nevi are benign melanocytic proliferations that can be acquired in the context of certain autoimmune pathologies and can result from specific treatments. The presence of a homogeneous brown pattern and irregularly arranged brown dots and globules is a pattern described for the first time in the context of post-treatment eruptive nevi, especially post-Rituximab. It is important to consider this possibility and not hesitate to perform a biopsy.

Conflicts of Interests

The authors declare that there is no conflict of interest for this paper.

Consent of Patient

The examination of this patient was conducted according to the Declaration of Helsinki principles.

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