of the jaws: risk factors, recognition, prevention, and treatment. J Oral Maxillofac Surg 2005;63:1567-1575.

- Sigua-Rodriguez EA, da Costa Ribeiro R, de Brito AC, Alvarez-Pinzon N, de Albergaria-Barbosa JR. Bisphosphonaterelated osteonecrosis of the jaw: a review of the literature. Int J Dent 2014;2014:192320.
- Chiandussi S, Biasotto M, Dore F, Cavalli F, Cova MA, Di Lenarda R. Clinical and diagnostic imaging of bisphosphonateassociated osteonecrosis of the jaws. Dentomaxillofac Radiol 2006;35:236-243.
- 5. Kim SH, Park SJ, Oh JJ, Lee ES. A case of cutaneous sinus tract of dental origin. Ann Dermatol 2002;14:235-238.

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# Dermoscopic Finding in Pigmented Purpuric Lichenoid Dermatosis of Gougerot-Blum: A Useful Tool for Clinical Diagnosis

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Dear Editor:

Pigmented purpuric lichenoid dermatosis of Gougerot-Blum is an uncommon subtype of pigmented purpuric dermatosis (PPD). It is clinically characterised by tiny lichenoid papules that tend to fuse into plaques of various hues and are observed commonly on the legs but rarely on the trunk. It is morphologically characterised by but histopathologically indistinguishable from other entities of PPD<sup>1</sup>. Therefore, dermoscopy can be a highly valuable tool for accurate diagnosis<sup>2</sup>.

A 61-year-old woman presented with localized orange to brown lichenoid macules and papules on both legs for 3 years without any symptoms (Fig. 1A, B). Histopathological examination of the lichenoid papule revealed dense lichenoid cellular infiltration composed of lymphocytes, extravasated red blood cells, and hemosiderin in the upper dermis (Fig. 1C, D). Dermoscopy revealed round to oval red dots and globules with orange-to-brown-pigmented scaly patches (Fig. 1E).

PPD is a chronic and relapsing disorder characterised by a symmetrical rash of petechial and pigmentary macules usually confined to the lower limbs. PPD have been traditionally divided into the following six clinical entities: 1) progressive PPD (i.e., Schamberg's disease), 2) purpura annularis telangiectodes (i.e., Majocchi's disease), 3) lichen aureus, 4) PPD of Gougerot-Blum, 5) itching purpura, and 6) eczematid-like purpura of Doucas-Kapetanakis<sup>3</sup>. PPD of Gougerot-Blum is likely a variant of Majocchi's disease. It is diagnosed based on clinical and histopathologic features. However, PPD of Gougerot-Blum might clinically resemble Kaposi's sarcoma, mycosis fungoides, cutaneous vasculitis, and traumatic purpura. Dermoscopy is a non-invasive method that can be useful for making a correct diagnosis by differentiating coloured skin lesions.

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#### Brief Report



**Fig. 1.** (A) Localized orange to brown coloured lichenoid macules and papules on both legs. (B) Close-up view of cutaneous lesions. (C) Histopathologic findings from the lichenoid papule shows dense lichenoid cellular infiltration in the upper dermis (D) composed of lymphocytes, extravasated red blood cells, and hemosiderin (H&E; C: ×100, D: ×400). (E) Dermoscopic findings of round to oval red dots (red arrows) and globules (blue arrows) with orange-to-brown-pigmented background (arrowhead).

It complements clinical examination and allows improvement of the accuracy of diagnosis<sup>4</sup>.

To the best of our knowledge, dermoscopic findings in PPD of Gougerot-Blum have not been reported yet. There were only two reports<sup>2,4</sup> of dermoscopic findings of PPD, lichen aureus. As published by authors, it exhibit a diffuse copper background, with red globules, plaques and round-to-oval dots, some gray dots and a network of interconnected pigmented lines.

In comparison, in the dermoscopic examination in the present case of PPD of Gougerot-Blum, small polygonal or round red dots and globules were observed underlying orange to brown scaly patches.

Vazquez-Lopez et al.<sup>5</sup> suggested that dermoscopic patterns of purpuric lesions correlated to histopathologic findings. PPD are related to variable amounts of erythrocytes, lymphocytes, and siderophages surrounding swollen blood vessels within the upper part of the dermis, with or without epidermal changes. Therefore, the difference in the dermoscopic findings of lichen aureus and PPD of Gougerot-Blum is caused by the variable amounts of cell components.

In the present case, the orange to brown patches can be explained by the dermal infiltrate of lymphocytes and histiocytes, and by hemosiderin. Difference in the color of the background partially reflects the condition of extravasated erythrocytes. The red globules in our case can correspond to the histological finding of intact erythrocytes. To conclude, dermoscopy could be a useful complement for a correct diagnosis of PPD of Gougerot-Blum, but further studies are required to generalize the dermoscopic findings in PPD of Gougerot-Blum described herein.

### **CONFLICTS OF INTEREST**

The authors have nothing to disclose.

### REFERENCES

- 1. Sardana K, Sarkar R, Sehgal VN. Pigmented purpuric dermatoses: an overview. Int J Dermatol 2004;43:482-488.
- 2. Zaballos P, Puig S, Malvehy J. Dermoscopy of pigmented purpuric dermatoses (lichen aureus): a useful tool for clinical diagnosis. Arch Dermatol 2004;140:1290-1291.
- 3. Kim DH, Seo SH, Ahn HH, Kye YC, Choi JE. Characteristics

and clinical manifestations of pigmented purpuric dermatosis. Ann Dermatol 2015;27:404-410.

- Portela PS, Melo DF, Ormiga P, Oliveira FJ, Freitas NC, Bastos Júnior CS. Dermoscopy of lichen aureus. An Bras Dermatol 2013;88:253-255.
- Vazquez-Lopez F, García-García B, Sanchez-Martin J, Argenziano G. Dermoscopic patterns of purpuric lesions. Arch Dermatol 2010;146:938.

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# Fibrous Plaque of the Eyelid in a Patient with Tuberous Sclerosis Responding to Everolimus

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Dear Editor:

Tuberous sclerosis complex (TSC) is an autosomal dominant syndrome with variable expression and is manifested by hamartomatous tumors in multiple organs. Skin lesions occur in almost all affected individuals and are critical for diagnosis. Herein, we report a compelling case of TSC with an unusual eyelid lesion showing mild improvement after treatment with systemic everolimus.

A 5-year-old girl presented with a localized erythematous indurated plaque of the left lower eyelid. She was born by cesarean section at 41 weeks. The patient was diagnosed with TSC at 28 months of age; when she presented with seizure, developmental delay, multiple subcortical tubers in the bilateral cerebral hemisphere, subependymal nodule with internal calcification suspicious of subependymal giant cell astrocytoma at the left lateral ventricle, and angiomyolipomas in both kidneys. On genetic testing, she was found to have the *TSC2* mutation. Physical examination revealed an erythematous indurated plaque of the left lower eyelid and skin-colored to brownish plaques on the forehead (Fig. 1A, B). Histological examination of an eyelid specimen showed irregular proliferation of fibrous tissue and blood vessels and hyperplasia of hair follicles, consistent with fibrous facial plaque (Fig. 2). She was treated with oral everolimus for subependymal giant cell astrocytoma for 14 months. Reduced thickness and erythema of the lesion was noted on follow-up (Fig. 1C). There was no adverse event related to treatment with everolimus.

Fibrous facial plaques and angiofibromas are characterized by dermal fibrosis and together are considered major features of the diagnostic criteria for TSC<sup>1</sup>. Hyperplasia of hair follicles in frontal plaques has also been documented<sup>2</sup>. Fibrous facial plaque is an irregular, soft-to-firm connective tissue nevus that is either the color of the normal surrounding skin, red, or hyperpigmented. The con-

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