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, Malvey 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.
4. Portela PS, Melo DF, Ormiga P, Oliveira FJ, Freitas NC, Bastos Júnior CS. Dermoscopy of lichen aureus. *An Bras Dermatol* 2013;88:253-255.
5. 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

Sung-Min Park^{1,2}, Byung-Soo Kim¹, Moon-Bum Kim¹, Yun-Jin Lee³, Hyun-Chang Ko^{1,2}

¹Department of Dermatology, Pusan National University School of Medicine, ²Department of Dermatology, Pusan National University Yangsan Hospital, ³Department of Pediatrics, Pusan National University School of Medicine, Yangsan, Korea

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 TSC¹. Hyperplasia of hair follicles in frontal plaques has also been documented². 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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Corresponding author: Hyun-Chang Ko, Department of Dermatology, Pusan National University Yangsan Hospital, 20 Geumo-ro, Mulgeum-eup, Yangsan 50612, Korea. Tel: 82-55-360-1678, Fax: 82-55-360-1679, E-mail: hcko@pusan.ac.kr

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Fig. 1. (A, B) Erythematous indurated plaque of the left lower eyelid, skin-colored to brownish plaques on the forehead. (C) Decrease in thickness and erythema of the lesion after oral everolimus treatment for 14 months.

Fig. 2. Histological examination of the eyelid specimen shows fibrovascular proliferation and hyperplasia of hair follicles (H&E; A: $\times 20$, B: $\times 100$).

sensus conference recommended that the terminology “fibrous cephalic plaque” be used in place of “forehead plaque,” as lesions may occur on any part of the face or scalp¹.

A previous study reported positive results with oral sirolimus used for angiofibromas and shagreen patches³. Everolimus, a derivative of sirolimus, works as an inhibitor of mammalian target of rapamycin, inhibiting tumorigenesis and angiogenesis⁴. In the present case, the patient was treated with oral everolimus for 14 months, resulting in an improvement in the thickness and erythema of the eyelid lesion.

To the best of our knowledge, reports of unusual eyelid lesions in TSC have been rare⁵. In addition, this case sug-

gests that everolimus may be an effective treatment for fibrous facial plaques as well as facial angiofibromas and shagreen patches.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

REFERENCES

1. Jacks SK, Witman PM. Tuberous sclerosis complex: an update for dermatologists. *Pediatr Dermatol* 2015;32:563-570.
2. Torrelo A, Hadj-Rabia S, Colmenero I, Piston R, Sybert VP,

- Hilari-Carbonell H, et al. Folliculocystic and collagen hamartoma of tuberous sclerosis complex. *J Am Acad Dermatol* 2012;66:617-621.
3. Nathan N, Wang JA, Li S, Cowen EW, Haughey M, Moss J, et al. Improvement of tuberous sclerosis complex (TSC) skin tumors during long-term treatment with oral sirolimus. *J Am Acad Dermatol* 2015;73:802-808.
4. Karar J, Maity A. PI3K/AKT/mTOR pathway in angiogenesis. *Front Mol Neurosci* 2011;4:51.
5. Zolli C, Rodrigues MM, Shannon GM. Unusual eyelid involvement in tuberous sclerosis. *J Pediatr Ophthalmol* 1976;13:156-158.

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Disseminated Superficial Actinic Porokeratosis in a Vitiligo Patient Undergoing Treatment with Long-Term Narrowband Ultraviolet B

Eun-Jae Shin, Min Jae Gwak, Ki-Heon Jeong, Mu-Hyoung Lee

Department of Dermatology, College of Medicine, Kyung Hee University, Seoul, Korea

Dear Editor:

Disseminated superficial actinic porokeratosis (DSAP) is distinguishable among the porokeratosis by large numbers of lesions on sun-exposed skin, and sparing of the palms and soles. The tendency to develop DSAP is inherited as an autosomal dominant characteristic. However, a certain amount of accumulated sun exposure and other factors such as immunosuppression, hepatitis, and rarely phototherapy can enhance this tendency¹.

A 52-year-old Korean woman had had vitiligo on her forehead, anterior chest, and abdomen for 5 years. There were no other skin lesions except for vitiligo when the patient visited our clinic, but her son has DSAP on the face. The patient was treated with topical application of corticosteroids, tacrolimus, and narrowband ultraviolet B (NB-UVB, Waldmann UV 5040KL; Waldmann, Villingen-Schwenningen, Germany) phototherapy. Several asymptomatic annular brown colored macules with thread-like borders were identified on her whole body after 7 months

of irradiation (Fig. 1A, B). The total cumulative irradiation dose of NB-UVB was 42.9 J/cm² at that time, and she had noticed these skin lesions 2 to 3 weeks previously. Interestingly, any skin lesions did not appear in the vitiliginous areas, even though over 100 DSAP lesions had developed on the whole body. A biopsy specimen disclosed the characteristic histopathological findings of DSAP (Fig. 1C).

Although we had warned patient about the risk of malignant change, the patient wanted to continue treatment. Therefore, the normal skin without vitiligo lesions was covered with the cloth during phototherapy. A few new lesions occurred within a few months of the initial detection of DSAP, and the color of lesions was getting darker with time. But the number and size of DSAP lesions were not altered until now.

Nine cases of DSAP associated with photo(chemo)therapy were reviewed (Table 1)¹⁻³. In this case, it is thought that DSAP lesions on the trunk was induced by NB-UVB be-

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Corresponding author: Mu-Hyoung Lee, Department of Dermatology, Kyung Hee University Medical Center, 23 Kyungheedaero, Dongdaemun-gu, Seoul 02447, Korea. Tel: 82-2-958-8512, Fax: 82-2-969-6538, E-mail: mhlee@khmc.or.kr

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