showed spherical small brown-black granules deposited in the basement membrane around the eccrine glands, and scattered in the dermis (Fig. 2). The laboratory tests were unremarkable. The skin color change was dealt with using a Q-switched 1,064 nm Nd:YAG laser (Medlite IV; Continuum, Santa Clara, CA, USA). The laser was used at a fluence of 8 J/cm$^2$ and pulse duration of 6 nanoseconds with a 4-mm spot size. There was no on-the-spot complications or any sequelae. Afterwards, we dealt with the patient's other part of the face after an interval of two to three months. Thereafter, with three lots of treatment, the treated area showed significant improvement (Fig. 1B). Agree on the use of patient photos obtained.

The pathophysiology of silver deposition in the development of argyria is not completely known. Like photography, sunlight reduces elemental silver to silver sul?de and selenide in the skin. This mechanism, combined with melanocyte stimulation, provokes cutaneous color changes[3]. Treatment of argyria is very difficult. The underlying mechanisms of argyria treatment by Q-switched lasers may be analogous to tattoo removal[4]. The 1,064-nm wavelength laser is weakly absorbed by melanin or water, which can penetrate into the deep dermis where eccrine sweat glands and silver granules exist. The present case showed significant improvement after four sessions of Q-switched Nd:YAG laser. The patient was highly satisfied with the result, and is continuously receiving the treatment to date. In conclusion, Q-switched 1,064-nm Nd:YAG laser is a useful modality for the treatment of argyria, even though more research is necessary to confirm whether the beneficial effect is coherent.

## REFERENCES


1. Brandt D, Park B, Hoang M, Jacobe HT. Argyria secondary to ingestion of homemade silver solution. J Am Acad Dermatol 2005;53(2 Suppl 1):S105-S107.
2. Chang AL, Khosravi V, Egbert B. A case of argyria after colloidal silver ingestion. J Cutan Pathol 2006;33:809-811.
3. White JM, Powell AM, Brady K, Russell-Jones R. Severe generalized argyria secondary to ingestion of colloidal silver protein. Clin Exp Dermatol 2003;28:254-256.
4. Leuenberger ML, Mulas MW, Hata TR, Goldman MP, Fitzpatrick RE, Grevelink JM. Comparison of the Q-switched alexandrite, Nd:YAG, and ruby lasers in treating blue-black tattoos. Dermatol Surg 1999;25:10-14.


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# Cockarde (Target-Like Lesion) Seborrheic Keratosis: An Unusual Clinical Pattern


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Dear Editor:

Seborrheic keratosis (SK) is the most common type of benign epidermal neoplasm, and has variable clinical presentation. Typically, SK first presents as yellowish, circumscribed papules, which later become more exophytic, brown and/or hyperpigmented. Greasy, adherent squamous material subsequently develops[1]. These lesions commonly present as round or oval keratotic papules or plaques

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**Fig. 1.** Targetoid seborrheic keratosis. Central black plaque surrounded by a brownish patch. A subsequent elliptical biopsy was performed containing the inner round plaque and a part of the surrounding patch (Asterisk: round black inner plaque. Black and white arrow: light brown arcuate patch surrounding inner plaque).

with a classically papillomatous surface that is sprinkled with comedon-like openings. To the best of our knowledge, SK with a target-like morphology has not been previously reported. Herein, we report a case of SK with an uncommon target-like appearance, which we denominate 'cockarde (target-like lesion) SK'.

A 57-year-old woman presented to our clinic with a several-year history of an asymptomatic lesion on her left thigh, which she reported to have gradually increased in size over the past several months. The patient denied any other relevant clinical past history, and all initial laboratory tests were within normal limits. Dermatologic examination revealed a sharply demarcated, slightly elevated, well-defined, darkly pigmented, target-shaped lesion on the left thigh. Additionally, the lesion contained a round black inner plaque measuring 0.5 cm in diameter, which was surrounded by a light brown arcuate patch, so that the diameter of the overall lesion was 1.5 cm (Fig. 1).

An elliptical biopsy including the inner round plaque and

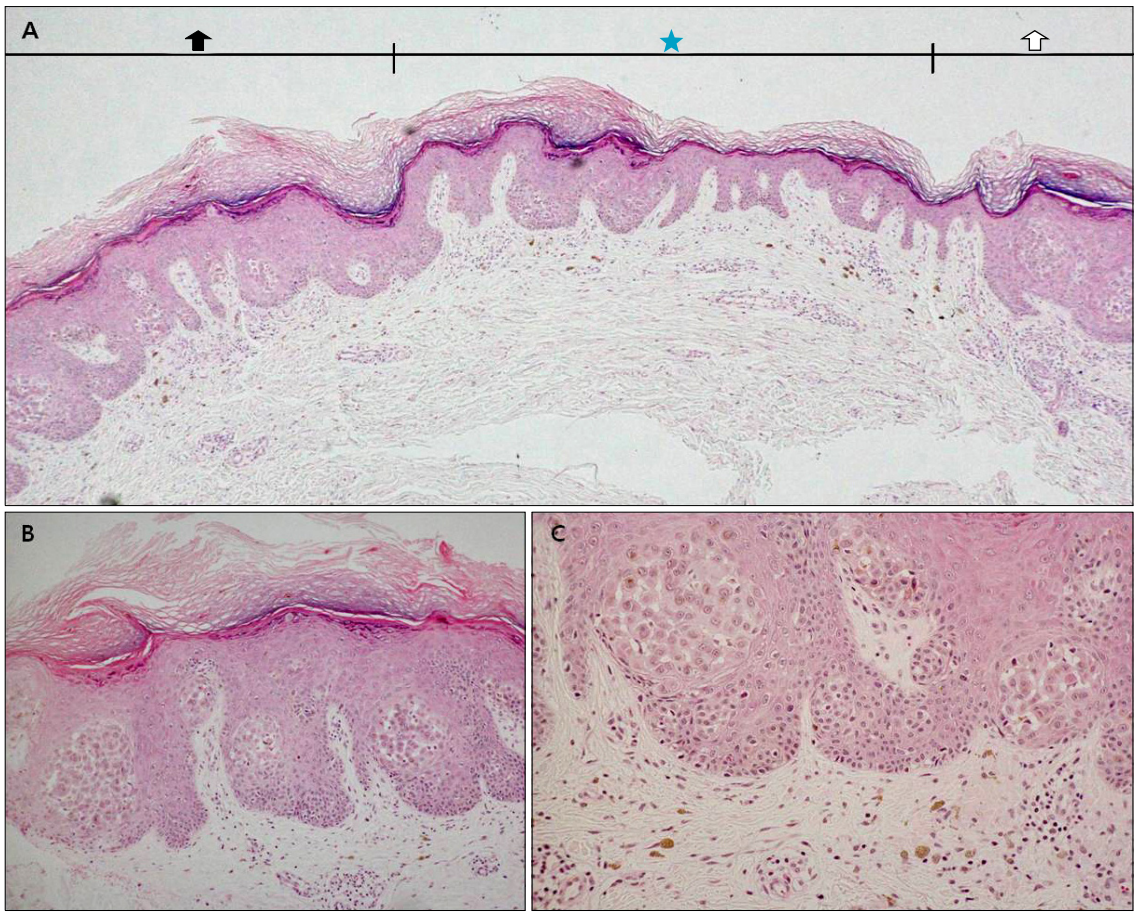


**Fig. 2.** Histopathologic characteristics of seborrheic keratosis (clonal type). (A, B) Histopathological examination revealed generalized hyperkeratosis, acanthosis, and a proliferation of sharply demarcated intraepithelial nests of large pale cells in the epidermis of the central lesion. The adjacent epidermis in the biopsy lied on a straight line. (C) Histopathological examination revealed intraepithelial nests of large cells and melanophages in the upper dermis (A: H&E, ×40; B: H&E, ×100; C: H&E, ×200) (Asterisk: histopathologic findings of round black inner plaque. Black and white arrow: histopathologic findings of the surrounding light brown arcuate patch).

part of the surrounding patch was then performed, with the subsequent histopathological examination revealing generalized hyperkeratosis and acanthosis and a proliferation of sharply demarcated intraepithelial nests of large pale cells in the epidermis of the central lesion. The adjacent epidermis in the specimen was also noted to lie on a straight line. Given these histological features, a diagnosis of SK (clonal type) was reached (Fig. 2).

In the dermatology literature, target-like lesions are most commonly associated with erythema multiforme, Stevens-Johnson's syndrome, toxic epidermal necrolysis[2], cockarde nevus[3], drug eruption, vasculitis, acute hemorrhagic edema of infancy, and various connective tissue and blistering diseases[4]. Therefore, when a patient complains of a target-like lesion, the above-mentioned diseases should be considered in the first instance.

In many cases, SK can be readily diagnosed based on clinical presentation. However, Bryant[5] reported that only 44.1% of cases of SK are correctly diagnosed by dermatologists. The report also suggests that SK in which lesions present with an unusual appearance is likely to be even more difficult to diagnose. Although SK is divided into many subtypes, its clinical variants are rare: these have been reported to be stucco keratosis, dermatosis papulosa nigra, and Leser-Trelat syndrome[1].

To the best of our knowledge, target-like SK or cockarde SK has not previously been reported in the literature. As such, we contend that this case is unique secondary to the presenting clinical features, and thus propose that 'cockarde SK' be recognized as an additional clinical variant of SK. Knowledge of this unusual variant of SK would be helpful in differentiating several target-shaped diseases, as well as in making a proper diagnosis of this rare condition.

## REFERENCES

1. Hafner C, Vogt T. Seborrheic keratosis. J Dtsch Dermatol Ges 2008;6:664-677.
2. Wolf R, Lipozencic J. Shape and configuration of skin lesions: targetoid lesions. Clin Dermatol 2011;29:504-508.
3. Guzzo C, Johnson B, Honig P. Cockarde nevus: a case report and review of the literature. Pediatr Dermatol 1988;5:250-253.
4. Hughey LC. Approach to the hospitalized patient with targetoid lesions. Dermatol Ther 2011;24:196-206.
5. Bryant J. Conservative clinical diagnoses in seborrheic keratosis. Arch Dermatol 1998;134:752-753.