# Two Cases of Confluent and Reticulated Papillomatosis with an Unusual Location

**Deborah Lee, Kyung-Jong Cho, Soon-Kwon Hong, Jong-Keun Seo, Seon-Wook Hwang* and Ho-Suk Sung**
*Department of Dermatology, Pusan Paik Hospital, College of Medicine, Inje University, 633-165, Kaegum-dong, Busanjin-gu, Busan, Korea.*
**E-mail: skindoctor@paran.com*
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*Sir,*

Confluent and reticulated papillomatosis (CRP) is a rare dermatosis of unknown origin characterized by hyperpigmented, confluent papules. The sites of predilection are the neck, inter-mammary area and abdomen (1). Rarely, CRP develops at the other sites, such as the knee, elbow, hand, and antecubital and popliteal fossae (2, 3). We describe two rare cases of CRP that developed at the elbow and popliteal fossae.

## CASE REPORT

*Case 1*

An 18-year-old Korean man presented with an erythematous reticulated scaly plaque in both popliteal fossae. Two weeks earlier, hyperpigmented papules developed in both popliteal fossae and evolved into a reticulated velvety plaque with moderate itching. The skin lesions gradually increased in size and became confluent. At the local hospital, he was treated with an antifungal agent, but the lesions grew further. The physical examination showed a symmetric erythematous reticulated scaly plaque in his popliteal fossae (Fig. 1). Routine haematological and biochemical investigations revealed no abnormalities. No fungus was found on potassium hydroxide (KOH) examination. His family and past histories were non-contributory. Histopathological examination revealed epidermal hyperkeratosis, papillomatosis, acanthosis, and dermal perivascular sparse lymphocytic infiltration, compatible with CRP. The patient was given methylprednisolone aceponate cream for one week and the lesions faded gradually and cleared within 4 weeks.

*Case 2*

A 17-year-old man presented with erythematous to brownish reticulated patches and plaques on both elbows for one year; these spread to both popliteal fossae and axillae. Physical examination revealed erythematous to brownish patches and plaques in a confluent and reticulated pattern (Fig. 2). KOH preparation and fungal culture of scrapings from the eruptions were negative. The complete blood cell count, erythrocyte sedimentation rate, and liver and kidney function tests were within normal limits. A biopsy specimen taken from the popliteal fossae showed hyperkeratosis, a slightly thickened stratum granulosum, papillomatosis, acanthosis and mild increased pigmentation in the basal layer (Fig. 3). The clinical and histopathological findings were compatible with the diagnosis of

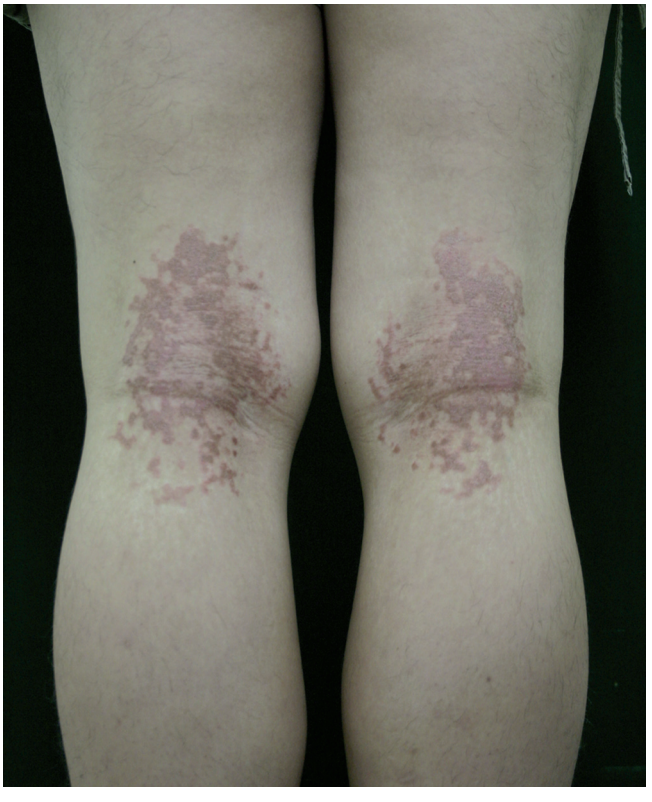

*Fig. 1.* Case 1. Symmetric erythematous reticulated scaly plaque on the both popliteal fossae.

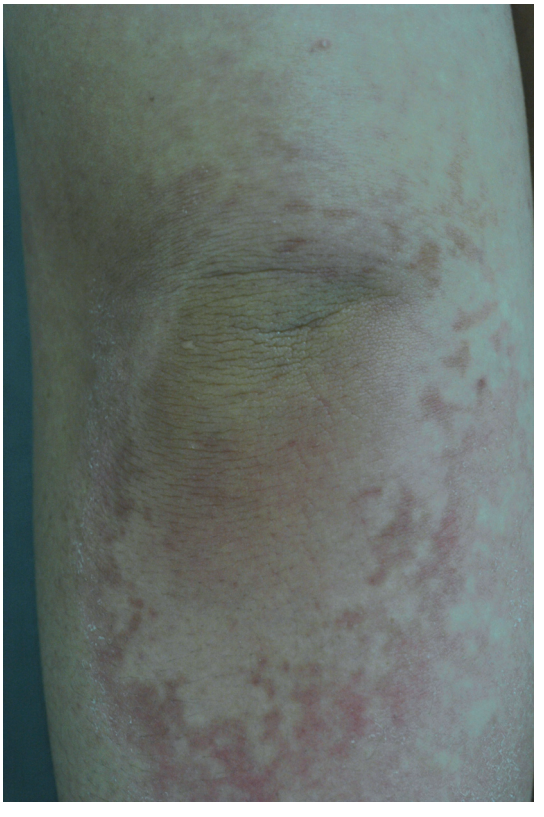

*Fig. 2.* Case 2. Erythematous to brownish patches and plaques in a confluent and reticulated pattern on the elbow.

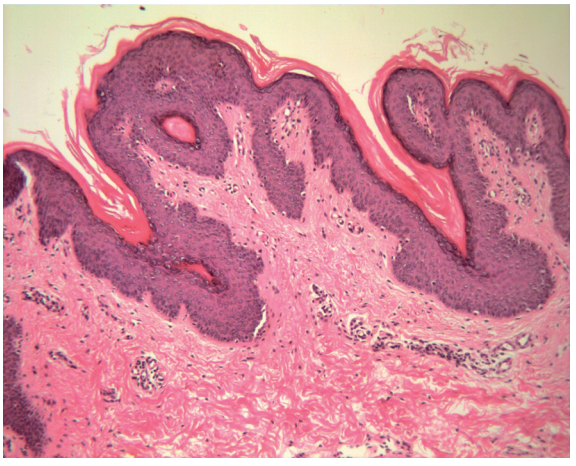

*Fig. 3.* Histopathological finding shows hyperkeratosis, marked hypergranulosis, papillomatosis and acanthosis in epidermis and sparse dermal perivascular lymphocytic infiltration (H&E stain, ×100).

CRP. The patient was treated with ketoconazole cream and minocycline 200 mg every day for 4 weeks. This resulted in complete regression of the lesions.

## DISCUSSION

Clinically, CRP is usually characterized by skin-coloured or faintly erythematous to hyperpigmented patches that become confluent in the centre and reticulated at the periphery, located in the intermammary, interscapular, and back areas. Rarely, CRP involves other sites, such as the knee, elbow, hand, and antecubital and popliteal fossae (2, 3).

Raja Babu et al. (2) presented a rare case of CRP that involved the popliteal fossae, as in our first patient. Other cases with unusual locations had involvement of the elbow, knee and pubic area (3–5).

Histopathologically, CRP shows slight hyperkeratosis, papillomatosis, and focal acanthosis (6). The histological findings in our two cases at the popliteal fossae were compatible with those of CRP. Although the elbow lesion was not proven by histopathological examination, it was also considered to be CRP based on its similarity to the popliteal fossae lesions.

The conditions to be considered in the differential diagnosis of CRP include tinea versicolor, Darier's disease, and acanthosis nigricans (AN) (7). Tinea versicolor was ruled out by the absence of organisms on KOH examination and Periodic acid-Schiff (PAS) staining. Darier's disease was ruled out in the histological examination by the lack of suprabasal acantholysis and dyskeratotic cells (corps ronds and grains). Clinically, AN is characterized by a hyperpigmented, velvet-textured plaque and is often accompanied by malignancies, familial involvement, and endocrinopathy. The histological finding of AN is a projection of finger-like dermal papillae covered by thinned epidermis (8). Our cases had no history of inheritance or endocrine disease. In addition, a clinically reticulated plaque and no thinned epidermis covering finger-like projections of dermal papillae were observed. In addition, the elbow lesions of case 2 should be distinguished from erythrokeratodermia variabilis, a rare, autosomal dominant disorder that usually presents at birth or during the first year of life and shows sharply demarcated, migratory red patches (9). However, the patient had no family history of similar skin eruptions and no migratory appearance of the lesions.

The optimum treatment of CRP has not been standardized. It includes salicylic acid, topical or systemic steroids, vitamin A derivatives, anti-fungal agents, and antibiotics such as minocycline (10–12). Raja Babu et al. (2) prescribed azithromycin 500 mg daily for 7 days and total regression followed within 4 weeks. Atosay et al. (3) treated a CRP patient with azithromycin 500 mg daily for one week, and the lesions subsequently faded and cleared. In our cases, we used topical methylprednisolone aceponate, ketoconazole cream, and oral minocycline 200 mg every day. After one month, the patients were lesion-free and no recurrences occurred.

In conclusion, we report two interesting cases of CRP that developed at very rare sites.

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