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Solitary Granuloma Annulare: The First Case of Development on a Healthy Child's Palm

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Dear Editor:

Granuloma annulare (GA) is a benign inflammatory skin disease that classically presents as annular, flesh-colored grouped papules. It most commonly develops on the dorsal aspect of hands, although cases of palmar involvement are very rare[1]. We report a rare case of GA arising on the right palm of a 2-year-old healthy boy and review the related literature.

A healthy Korean boy aged 2 years came to our clinic with an asymptomatic solitary annular shaped plaque on his right palm. It had started to develop about 4 weeks ago and was later accompanied by a central depression. Physical examination revealed a solitary, coin sized, skin colored, firm, and non-tender plaque with a central concave surface (Fig. 1). His parents denied any previous history of trauma, relevant past medical history, and any

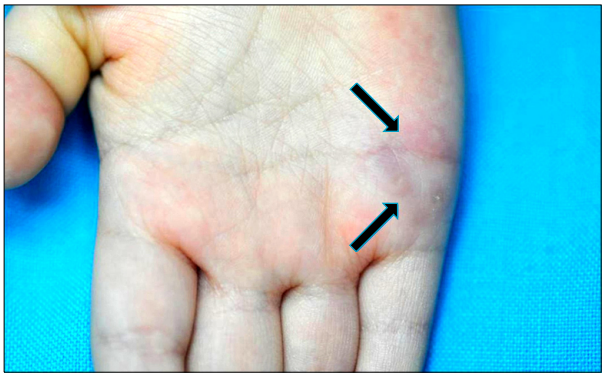

Fig. 1. Solitary, coin sized, mild hyperkeratotic, skin colored plaque with central depression on his palm (arrows).

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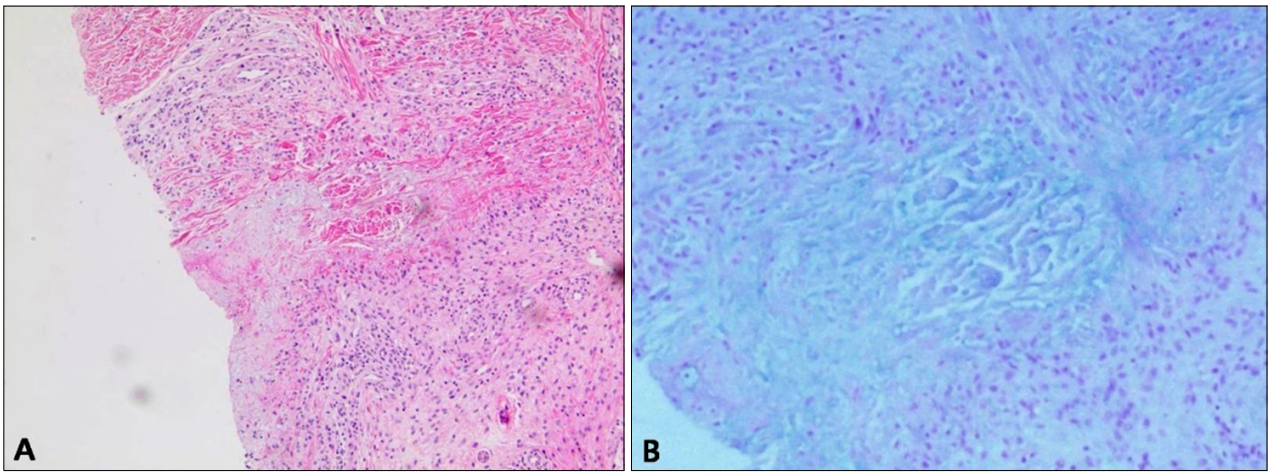

Fig. 2. (A) A biopsy specimen showed palisading granulomas with collagen degeneration and some inflammatory cells in the dermis (H&E, ×100). (B) Central mucinous area had a positive reaction as faint blue materials by alcian blue stain (×200).

other dermatosis. The punch biopsy from his right palm showed perivascular inflammatory infiltrations and palisading granulomas with collagen degenerations in the dermis (Fig. 2A). In addition, mucin infiltrations were confirmed with alcian blue stain as faint blue (Fig. 2B). Above these findings, we made a diagnosis of GA, and we then prescribed topical methylprednisolone aceponate.

GA is a benign granulomatous disease in an annular shape, and can also be a self-limited disease. Clinically, it has several different subtypes, although the localized type is the most common. In addition, acral regions such as knuckles and the dorsum of the fingers are involved most frequently, and the involvement of the palm has rarely been reported[1].

To our knowledge, several cases of GA on the palms have been reported[1-5]. In 1994, Barksdale et al.[2] announced 13 cases of GA associated with malignant lymphoma. In their data, uncommon locations, including the palms, sole, and face, and painful sensation (non-typical characteristic of GA), occurred in 3 of the 13 patients. Such cases were thought to explain the relevance of generalized granulomatous response associated with lymphoma, and therefore, unusual sites might be related to the systemic disease. However, because our patient had a normal development and was healthy, according to the guardians, his GA on the palm was meaningful at such an angle.

While other reports have described cases of GA developed on the palms, all cases had multiple lesions[2-4]. Therefore, GA cases reported in the literature as solitary lesions were extremely rare. In 2008, Imamura et al.[5] announced the case of long-standing solitary GA on the palm of a patient with dermatomyositis, which was the first description of solitary GA on the palm. We believe that our case is the second report of solitary GA on the palm, and this is the first report in the English literature of a healthy child.

A case of GA on the palm is very rare, and is thought to be meaningful as a solitary occurrence on the palm of a healthy boy. In addition, this case should be included in the differential diagnosis of palmar papules and plaques. At the same time, in the case where GA develops in a child, the dermatologist needs to inform the child's parents about its benign clinical course.

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