however, patch testing is the most sensitive diagnostic test but is not specific for gold. In fact, gold cross-react with mercury in both humans and experimental animals[2-4], a cross-reaction is likely to be the cause of about 10%～20% of the reactions reported to gold (Nakada et al.[4] and our unpublished study). For quantitative analysis, atomic electronic structures of gold and mercury are very similar and very close in the periodic table, leading to an atomic mimicry by cross-reactivity between mercury and gold[4]. Of note, mercury has atomic number 80 and gold, with the slightly less atomic number (Z=79), do share their electrons giving stable metallic bond. Likewise, in type III hypersensitivity reactions (or Arthus-type reactions), it is interesting to note that both gold and mercury may induce pathological processes mediated by circulating immune complexes[5]. It may therefore be worth considering this possibility when examining patients with contact allergy to gold and cross-reactions between gold and mercury should not be forgotten.

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Linear Psoriasis along Blaschko's Lines

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Dear Editor:

Linear psoriasis, a rare form of psoriasis, is characterized by the linear distribution of psoriatic lesions along Blaschko's lines[1,2]. Histopathologically, the classic features of psoriasis may be observed[1,2]. Herein, we report a case of linear psoriasis on the right side of the trunk.

A 14-year-old girl presented with a 1-year history of occasionally pruritic, well-defined, "S"-shaped, erythematous, and scaly patches from the right side of the pubic area to the back (Fig. 1). There were no nail or scalp lesions and no personal or family history of psoriasis. A skin biopsy from the back exhibited parakeratosis, elongation of rete ridges, Munro's microabscess, dilated tortuous blood vessels, and perivascular lymphocytic infiltration (Fig. 2). With the unilateral distribution in a linear pattern, the lesion was diagnosed as linear psoriasis and was treated with a topical betamethasone dipropionate/calcipotriol ointment. After 4 weeks, the lesion improved considerably

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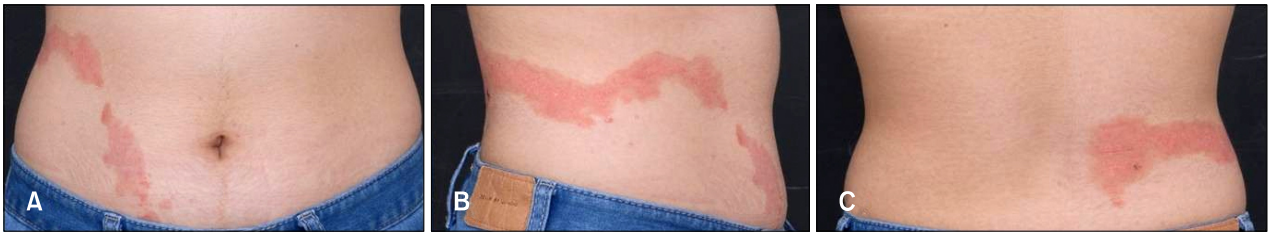

Fig. 1. (A∼C) A well-defined "S" shaped erythematous scaly patches from the right side of the pubic area to the back.

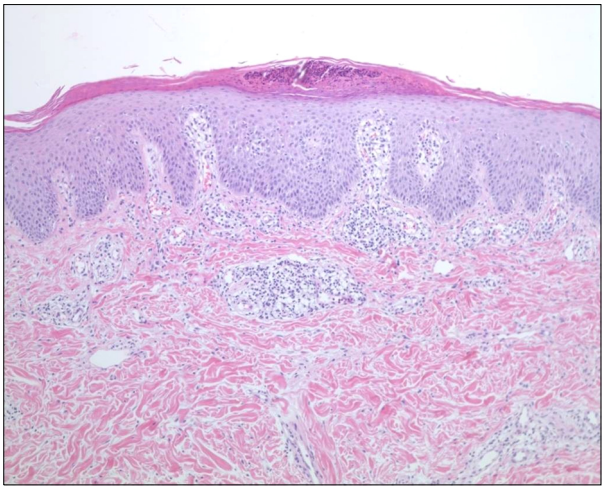

Fig. 2. Skin biopsy exhibiting parakeratosis, Munro's microabscess, acanthosis, elongation of rete ridges, and dilated tortuous blood vessels with perivascular lymphocytic infiltration (H&E, ×100).

and only a trace remained.

Linear psoriasis is an unusual subtype of psoriasis first described in 1951[3]. The pathogenesis is still unclear but could be explained by the concept of genetic mosaicism[4]. Happle proposed that loss of heterozygosity in somatic cells during early embryogenesis results in somatic recombination, i.e., homozygosity to one of the genes that predispose to psoriasis[4]. In this instance, one of the daughter cells may become homozygous for a psoriasis gene, becoming the stem cell of a clone proliferating in a linear pattern during the skin's embryonic development[4].

Because of clinical and histologic similarity, the main differential diagnosis is inflammatory linear verrucous epidermal nevus (ILVEN)[1,2]. Late onset but rapid progression of asymptomatic or slightly pruritic lesions with a possible involvement of the scalp and nails, and a favorable response to antipsoriatic treatment would indicate linear psoriasis[1,2]. In contrast, ILVEN lesions that usually appear in the first months of life, are slowly progressive, very pruritic, and highly refractory to antipsoriatic treatment[1,2]. Histologically, ILVEN classically presents with hypergranulosis and orthokeratosis alternating with hypogranulosis and parakeratosis, while Munro's microabscess is considered as characteristic of psoriasis[1,2]. Immunohistochemical studies could be helpful in distinguishing the two diseases[1,2]. In psoriasis patients, the number of Ki-67-positive nuclei is usually higher than that in ILVEN patients[1,2]. There is little expression of keratin 10 in psoriasis while these levels remain normal in ILVEN[1,2]. Furthermore, involucrin would be detectable in psoriasis but absent in ILVEN[1,2]. In our case, we easily excluded ILVEN because of characteristics such as late onset, mild pruritus, positive response to antipsoriatic treatment, and histological features.

We report a rare, but a typical and an interesting case of linear psoriasis. Dermatologists should be aware of this entity of linear psoriasis and keep this condition in mind in clinical settings.

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