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# A Case of Abortive Staphylococcal Scalded Skin Syndrome

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Dear Editor:

A 5-year-old boy presented with diffuse erythematous patches and fever, started three days earlier. Ten days earlier, second-generation cephalosporin and mupirocin ointment was used for a mosquito bite site on left elbow at another hospital. Three days ago, oral steroids were prescribed in another hospital to treat a trunk rash and perioral crust, but they did not work. At the time of arrival, the

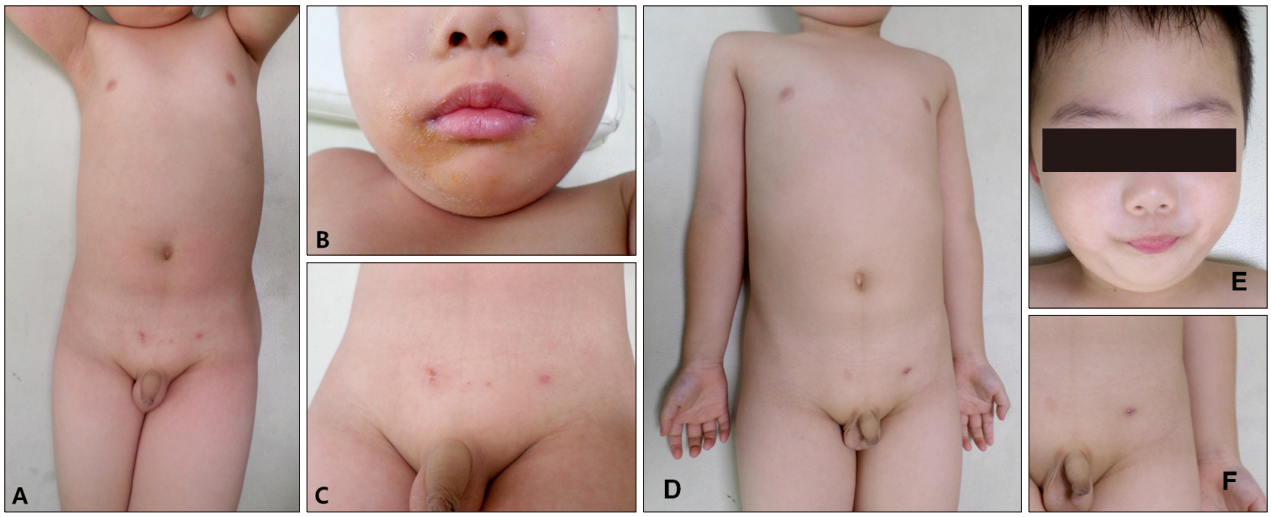


**Fig. 1.** Diffuse erythroderma involves the neck, trunk, and extremities with sandpaper-like coarseness (A), and perioral crust and fissure (B) were observed. Several vesicobullae and erosive lesions were observed in the lower abdomen, without Nikolsky sign (C). The desquamation worsened and the erythema gradually faded on the 8th day after admission (D∼F) (We received the patient's consent form about publishing all photographic materials).

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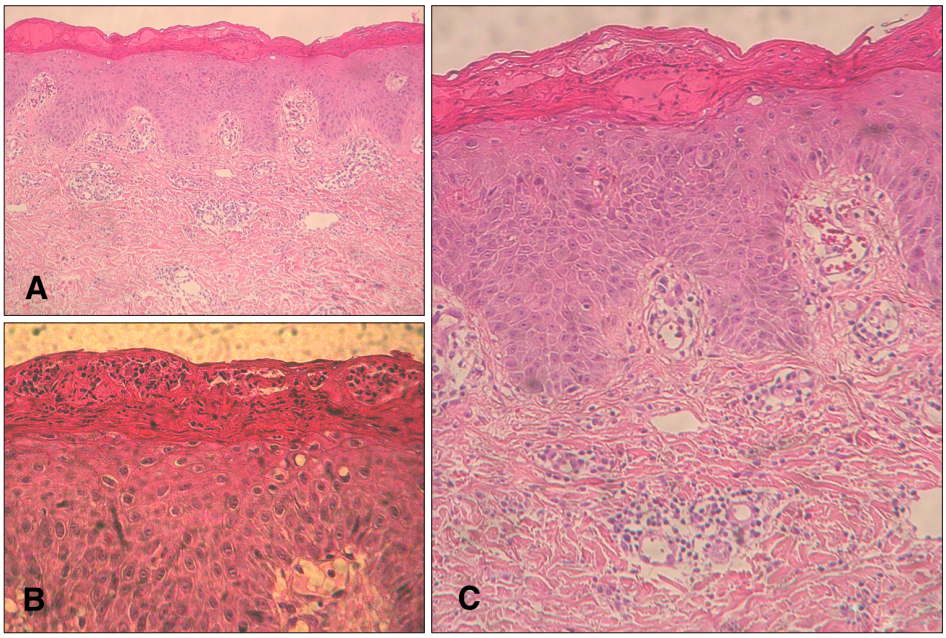


**Fig. 2.** In histology, neutrophils seen in the subcorneal lesion with mild perivascular lymphocytic infiltration were observed, but blistering was not distinct (H&E, A: ×40; B: ×200). Acantholysis was observed with little or scarce inflammatory cell infiltrate and no cell necrosis (C: H&E, ×100).

whole body skin was rough with erythematous patches and unclear border. Crust and cracks existed around the mouth (Fig. 1A, B). Thin blisters and erosions were on the lower abdomen, but the Nikolsky's sign was negative (Fig. 1C). The patient's body temperature was 37.1°C and there were no significant abnormalities in the laboratory test. *Staphylococcus aureus* was identified through bacterial culture from the elbows and throat. From the histopathology of the trunk, mild perivascular lymphocyte infiltration was observed with neutrophils seen in the subcorneal lesion, but blistering was not distinct (Fig. 2A, B). Mild spongiosis and scarce infiltration of inflammatory cells were observed without cell necrosis (Fig. 2C). After admission, third-generation cephalosporin was administered. The desquamation worsened and the erythema gradually faded. He was discharged on the 8th day after admission (Fig. 1D~F). Staphylococcal scalded skin syndrome (4S) is caused by toxins produced by *Staphylococcus aureus*[1,2]. Diagnosis is based on clinical features, and can be confirmed with bacterial culture, toxin isolation or pathologic findings. Diagnosis of causative organisms is based on the discovery of genes involved in the secretion of skin-deprived toxins from bacteria or toxins after isolating the *Staphylococcus aureus*[1,3]. However, isolation and genetic testing are difficult to perform because special facilities are required[3,4]. Clinical types are divided into four types: systemic, intermediate, abortive, and local[1]. The abortive form manifests as whole body scarlatiniform eruptions with a coarse, sandpaper-like surface at the early stage without blister formation[4,5]. Later, the healing process with desquamation occurs[4,5]. In general, Nikolsky's sign is negative[1,4]. It is usually cured with appropriate antibiotics, but the mortality rate is about 3% in children[4]. The abortive form has not yet been clearly defined. It seems likely that some cases cannot be strictly distinguished into different forms of 4S[2,3]. Abortive 4S requires a careful differential diagnosis because it imitates various skin diseases such as scarlet fever and impetigo[4,5]. The abortive form of the disease is known to be less common. However, according to previous studies in Korea, intermediate type and abortive type occupy the majority of cases, after reclassifying the clinical types with a retrospective review of medical records[4,5]. In this case, at the onset of disease, there were no blisters anywhere on the body and the Nikolsky's sign was negative. As with our patient, abortive 4S proved difficult to diagnose, and thus might be more common than expected. In addition, the incidence has increased in recent years[4]. In the context of the low awareness of the various forms of 4S, we experienced a case of abortive 4S that may serve as a useful educational case.

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## CONFLICTS OF INTEREST

The authors have nothing to disclose.

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# Influence of Weight Loss on Severity of Atopic Dermatitis in a 20-Year-Old Female with Atopic Dermatitis

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Dear Editor:

A 20-year-old female patient had atopic dermatitis (AD) from her second year. She had been treated with antihistamine, and with topical steroid and calcineurin inhibitor, for about one year. Four months ago, her symptoms got worse. At first visit, her body mass index (BMI) was 26.81 kg/cm$^2$ (73 kg, 165 cm), waist circumstance was 82 cm, Eczema Area and Severity Index (EASI) score was 16.8, and visual analogue scale (VAS) for pruritus was '7'. Physical examination revealed diffuse erythematous patches and maculopapules with slight crust and scales over her whole body, especially her face, back, and posterior aspects of her thighs (Fig. 1A～E). Symptoms did not improve after cyclosporine (100 mg/d) was given for three weeks. Maintaining existing therapy, she was referred to Family Medicine to manage her obesity. Dietary control and exercise were prescribed. Aerobic exercise of moderate intensity (METs 6～7) was recommended 150 minutes/week. She recorded the quantity, type of exercise, and total daily calorie intake in a diary. One tablet of anti-

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