STAPHYLOCOCCAL SCALDED SKIN SYNDROME MIMICKING TOXIC EPIDERMAL NECROLYSIS IN A HEALTHY ADULT

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Abstract

Introduction: Staphylococcal scaled skin syndrome (SSSS) presents generalized form bullous impetigo caused by Staphylococcus aureus (S. aureus) infection, typically seen in infants and children. SSSS may occur also in adults; however, the majority of adult cases are those with immunosuppression. Atypical clinical features of impetigo in adults sometimes make it difficult to diagnose correctly.

Case Report: A 74-year-old healthy woman was hospitalized, complaining of extensive desquamative erythema and a number of erosions. She was administered oral antiviral drugs under suspicion of herpes zoster prior to 10 days. Initial diagnosis on the admission was toxic epidermal necrolysis (TEN) due to antiviral tablets; however, steroid pulse therapy resulted in no effect. Bacterial culture yielded coagulase-positive methicillin-resistant S. aureus, producing exfoliative toxin B. A biopsy specimen showed subcorneal splitting of the epidermis. The diffuse erosions gradually improved over 10 days by the treatment with intravenous antibiotics.

Conclusions: The differentiation between streptococcal scaled skin syndrome (SSSS) and TEN is sometimes difficult. It is important to remind SSSS when we suspect TEN, even in healthy adults.

Key words: SSSS; TEN; MRSA; adult
**Discussion**

SSSS is an extensive exfoliative dermatitis caused by *S. aureus* infection. The blisters in SSSS is caused by exfoliative toxin (ET) released by *S. aureus*, occasionally by MRSA [1,2]. *S. aureus* infection results in a loss of keratinocyte cell-cell adhesion through desmoglein-1, leading to blister formation [3]. SSSS usually occurs in children, and is rarely seen in healthy adults [4-6]. SSSS in adults frequently occur in association with kidney failure, malignancy, and immunosuppression [7]. Although our case was an elderly female, she did not either present a prior condition for SSSS such as burn, wounds, or had diabetes, renal failure, or other immunosuppressive conditions. Our case presented diffuse erosive erythema with Nikolsky sign, following intake of antiviral drugs under a misdiagnosis of herpes zoster. Therefore we initially suspected TEN because the patient was healthy adult and had no significant past health history. However, a steroid therapy resulted in no effect and histology examination also denied TEN. Differentiation between TEN and SSSS is sometimes difficult. Nikolsky sign is not specific for TEN. Examination by histological examination by immediate cryosections, Tzank test, and blister roof histology may be useful as rapid tools. In SSSS, blister roof histology shows that the epidermal cleavage is within the stratum granulosum [8].

**Conclusion**

It is important to remind SSSS in cases suspecting TEN even in healthy adults, because the treatment for both diseases is different and SSSS is still associated with mortality.

**REFERENCES**