Staphylococcal scalded skin syndrome

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DESCRIPTION

Bacterial skin infection is a relatively frequent condition in paediatric population.

The staphylococcal scalded skin syndrome or the Ritter's disease¹ is a *Staphylococcus aureus* skin infection that typically has two periods of incidence: the neonatal period and early childhood (average presentation age 2 years).

It is associated with the presence of staphylococcal strains producing exfoliative toxins (ET_A and ET_B), which act specifically in the *granulosum* area of the epidermis. These toxins bind the matrix proteins, whose function is to promote the anchoring of intercellular desmosomes, thus conditioning its rupture, and the loss of cohesion between skin cells.^{2 3}

A 2-year-old girl presented a generalised rash with 48 h of evolution, in the context of insect bites on the face on the day before. At observation, she had a generalised micropapular rash with confluent areas and Nikolsky sign (figure 1). There was no mucosal area affected. Blood cultures were negative.

Treatment with flucloxacillin (100 mg/kg/day) for 10 days showed good results with a progression of the rash to exfoliative desquamation (figures 2 and 3).

From a clinical standpoint, the staphylococcal scalded skin syndrome presents itself as an erythematous macular rash that progresses to generalisation, and typically suffers disruption to a minimum pressure, a classic feature called Nikolsky

Figure 2 Evolution to scaly phase, more pronounced at periorificial areas.

sign.^{4 5} Subsequently, it evolves into a scaly phase, usually more pronounced in the periorificial regions.^{6 7}

The diagnosis of this condition is clinical in 70% of the cases^{3 6} and blood cultures are rarely positive, although *Staphylococcus* strains can be isolated from mucosa samples.

The first-line treatment consists of intravenous antibiotics, mainly antistaphylococcal penicillins. It usually has a favourable course, with reported death rate of 4%,^{5 8} which occurs related to complications like dehydration or bacterial superinfection.

Figure 1 Macular rash with Nikolsky's sign.

Figure 3 Appearance of the skin at discharge date (after 6 days of antibiotic therapy), with almost complete regression of the rash.

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Learning points

- ▶ Staphylococcal scalded skin syndrome constitutes a rare cause of skin infection mostly encountered in neonates and early childhood.
- ▶ Diagnosis is usually based on clinical evaluation alone, which discloses an erythematous extensive skin rash respecting mucosa.
- ▶ An appropriate antimicrobial therapy based on antistaphylococcal penicillins generally allows a favourable outcome, but a clinician must be aware of the risk of dehydration and bacterial superinfection.

Contributors We declare that all the authors actively participated in the diagnosis, management and follow-up of this case.

Competing interests None.

Patient consent Obtained.

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