Tutorials in Pediatric Dermatology

Impetigo Neonatorum

Carsten Sand

Department of Dermatology Bispebjerg Hospital Copenhagen, Denmark E-mail: csp01@bbh.regionh.dk

A 2-weeks-old othervise healthy newborn baby was admitted to the Department due to generalized erythroderma. At examination the skin was suberythrodermic (Fig. 1) and in the neck folds flaccid bullous lesions and pustules were noticed (Fig. 2). In the umbilical region remnants from a bulla was found as a collarette of scale in the border of a superficial lesion (Fig. 3). A clinical diagnosis of impetigo neonatorum was confirmed by direct microscopy of a smear showing Gram positive



Fig. 1. A newborn with diffuse erythroderma due to staphylococcal infection.

cocci in clusters. Final diagnosis was obtained after culturing *Staphylococcus aureus* from the skin lesions. The child received treatment with oral erythromycin and recovered without sequelae.

Impetigo neonatorum is a superficial skin infection usually caused by *Staphylococcus aureus* and rarely group *B streptococci*. Bullous lesions with pustules are common in neonates infected with pathogenic bacteria. Untreated neonatal impetigo may easily develop into Staphylococcal Scalded Skin Syndrome (SSSS) a potential fatal condition. Strains of *Staphylococcus aureus* that produce an exfoliative exotoxin are able to split the superficial epidermis resulting in either bullous impetigo or the more widespread SSSS. Previously SSSS was described as pemfigus contagiosus neonatorum or by Ritter dermatitis exfoliativa neonatorum and occurred in epidemic outbreaks due to poor hygiene. In SSSS the skin is erythematous, like scalded skin, and vulnerable as slight pressure may induce blister formation (Nikolsky sign).



Fig. 2. A collarette of scale due to a superficial split of the epidermis in a periumbilical lesion caused by Staphylococcus aureus exotoxin (same child as in Fig.1).



Fig. 3. Flaccid bullae and pustules in the neck folds in a newborn with bullous impetigo (same child as in Fig. 1).