

Congenital miliaria crystallina

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Abstract

Vesicular and pustular disturbances are of the neonatal period are common. Although most of them are harmless, their differentiation from life threatening infectious and non-infectious diseases is important^{1,2}. We therefore report on a newborn with the rare condition of congenital miliaria crystallina.

Introduction

Miliaria crystalina is a transient superficial obstruction of eccrine sweat ducts leading to rapidly evolving non-inflammatory vesicles. This condition is observed frequently in hot and humid countries and in the neonatal period, but congenital occurrence is very rare. Miliaria crystallina must be considered in the differential diagnosis of bullous diseases in newborns.

Case report

43 year old mother has had three uneventful, successful pregnancies. Family history was negative for skin diseases. In the last pregnancy during the antenatal period, she did not have any illness apart from productive cough, high fever and malaise that lasted for two days before the delivery, indicative of a respiratory tract infection. It subsided within two days uneventfully. She underwent caesarian section at full term, a healthy baby was delivered without any dysmorphic or congenital abnormalities. Birth weight was 2.45Kg, afebrile, had normal pulse rate and respiratory rate, crying and sucking was normal. Baby was in stable condition, rest of the examination was normal.

About 12 hours after the delivery, clear vesicles appeared from left shoulder, rapidly became generalized vesicles of varying sizes (2 – 4mm), closely spaced and contained clear fluid (Figure 1). They arose on normal skin, accentuated on axillae, neck, chest and abdomen. 12 hours later vesicular fluid turned turbid.

The smear (Tzanck test) from the base of the vesicles was negative for giant or acantholytic cells. Gram staining revealed no bacteria.

Course

On the basis of typical cutaneous manifestations, the diagnosis of miliaria crystallina was established. No local treatment was applied. Measures were taken to prevent further sweating. During subsequent two post natal days, branny desquamation with minor redness was noted, started from left shoulder and completed by day six (Figure 2).

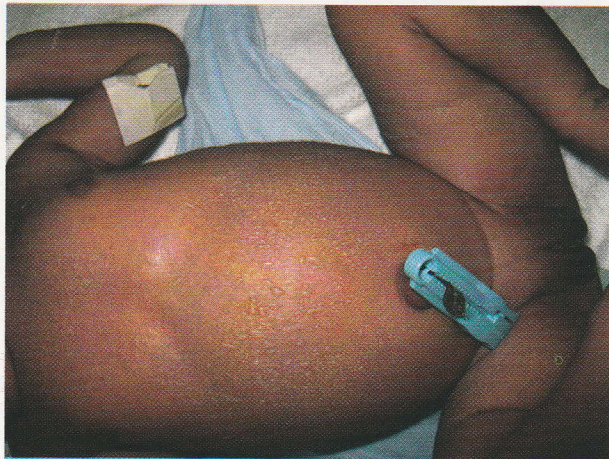


Figure 1.



Figure 2.

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Discussion

The miliaria according to the level of transient occlusion of the eccrine sweat duct at different levels of the skin, it will be categorized as miliaria crystalline, rubra and profunda. Miliaria crystallina is the most superficial form, common with febrile illnesses and hot and humid conditions. Clinically transient, translucent, thin roofed vesicles of 1 – 2 mm in diameter, without any inflammatory halo are observed¹. Lesions developed preferentially on the neck, axillae and face. In this location one could have silver sheen, then they can become turbid, because of corneocytes in the blister, this variant is called miliaria crystallina alba⁵. The thin roofs covering the blisters rupture easily and the skin clears leaving a superficial branny desquamation⁴.

In the newborns and children the disease is rather frequent. The occurrence was classified as extremely rare before day four of post natal period³. According to the authors disease never occur at delivery¹. In our patient maternal fever might have been the trigger.

The common differential diagnosis of neonatal blistering include herpes simplex virus, varicella, staphylococcus infection, erythema toxicum neonatorum, neonatal pustular melanosis, incontinentia pigmenti and epidermolysis bullosa². The most important difference remains that in miliaria crystallina the sweat in the blister is not yellowish, but clear like water¹. Therefore, the colour and form of blisters allow a definite clinical diagnosis.

Therapy of miliaria crystallina is simple. The most effective treatment is to avoid further sweating. A few hours in a cool environment will bring relief.

References

1. Norbert Haas, Beate Maria Henz, Heigel Weigel, Berlin. *Journal of American Academy of Dermatology*. 2002; 47: S270-2.
2. Wagner A. Distinguishing vesicular and pustular disorders in neonates. *Current Opin Pediatrics* 1997; 9: 396-405.
3. Hidano A, Purwoko R, Jitsukawa K. Statistical survey of skin changes in Japanese neonates. *Paediatric dermatology* 1986; 3: 140-4.
4. Hurwitz S. *Clinical paediatric dermatology*. Philadelphia: WB saunders; 1993.
5. Mayr J. Die Erkrankungen der Schweißdrüsen. In: Jadassohn J. *Handbuch der Haut-und Geschlechtskrankheiten*. vol 13. Berlin: Springer; 1932. p.3-42.