Transient Neonatal Pustular Melanosis☆

Melanosis pustulosa transitoria del recién nacido

To the Editor:

The presence of widespread pustules in newborns often suggests a serious infection. However, there is also a benign, inflammatory form of neonatal pustulosis. We report a case of transient neonatal pustular melanosis (TNPM), a self-limiting condition that affects full-term newborns and is characterized by the appearance of multiple sterile pustules distributed over the whole body surface.

A full-term newborn boy delivered by cesarean section and aged 12 hours was referred to our department from the pediatric unit to evaluate a vesiculopustular skin rash that was present at birth. On physical examination we observed numerous pustules on normal skin measuring between 1 mm and 5 mm in diameter and located on the scalp, face, chin, neck, trunk, buttocks, and proximal third of the lower limbs (Figs. 1 and 2). Some of the lesions no longer contained fluid and consisted of superficial crusts on an area of brownish skin (Fig. 2). The patient did not present fever or any other abnormal signs and a sterile pustular rash was initially suspected. The patient was treated solely with topical mupirocin to avoid secondary bacterial infection. A differential diagnosis was made with vertical transmission of bacterial infection (*Staphylococcus aureus*, *Streptococcus pyogenes*, *Pseudomonas* species, listeriosis), fungal infection (candidiasis), viral infection, and syphilis. These conditions were ruled out by additional testing. Blood cultures and serology were negative for herpes simplex virus (HSV), varicella zoster virus (VZV), cytomegalovirus, and syphilis. Samples were taken from 2 pustules and urgent Tzanck test and Gram stain were carried out. Part of the exudate was sent for microbiological culture and polymerase chain reaction for HSV and VZV. The Tzanck and Gram studies showed abundant polymorphonuclear cells and normal epithelial cells with no cytological sign of infection. All other additional test results were normal. At 48 hours after birth few pustules remained, the established lesions showed peripheral desquamation, and the newborn presented excellent general health. At 4 days the condition had resolved, with only hyperpigmented macules visible in areas where the pustules had been. Based on these data, a final diagnosis of TNPM was made.

TNPM is a rare disorder with a worldwide prevalence in newborn infants of less than 1%.[1–3] It affects both sexes equally and is more common in black infants, in whom the incidence is 4.4%.[3,4] The etiology of TNPM is unknown and no association with maternal infections or exposure to toxic substances has been detected.[4,5]

Clinically, TNPM is characterized by the appearance of vesicles and pustules on a background of healthy skin that is not erythematous.[4,5] The areas most frequently affected are the forehead, temporal regions, cheeks, neck, back, and buttocks; involvement of the palms and soles is very rare.[2,4] The initial lesions usually disappear spontaneously within the first 2 weeks of life, and no treatment is required. The pustules rupture and leave hyperpigmented macules with collarette scaling that persist for several weeks or even months.[4,6] TNPM is not associated with any systemic manifestations.[7]

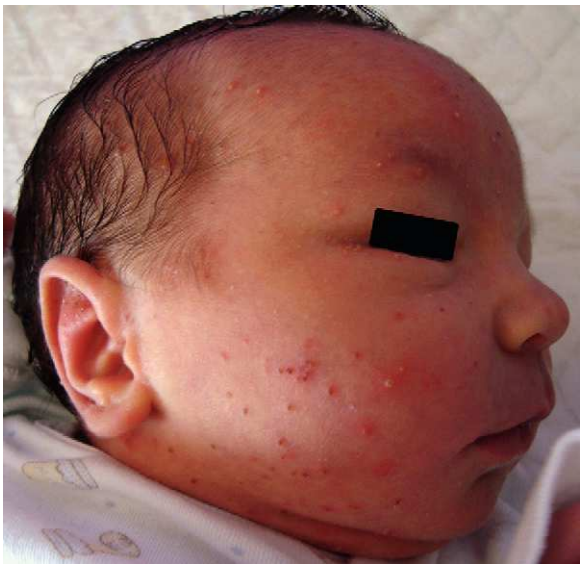

Figure 1 Multiple vesiculopustular lesions on the forehead, cheek, neck, and auricle of the ear.

The diagnosis is based on clinical findings and screening for other more serious conditions that require urgent antibiotic treatment. Skin biopsy is not usually necessary. TNPM may resemble various other skin rashes in newborns, such as neonatal toxic erythema (NTE), acne neonatorum, and eosinophilic pustular folliculitis, and it is essential to rule out systemic infection in patients presenting with these alterations.[1,3,8,9] In NTE, in contrast to TNPM, the pustules are located on a background of erythematous skin and peripheral eosinophilia may be present. Histologically,

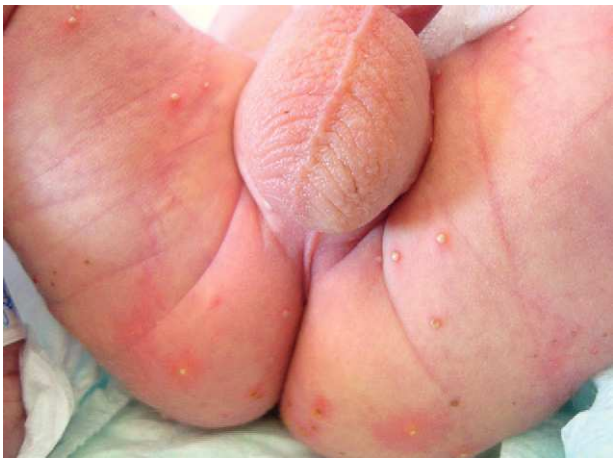

Figure 2 Pustules on the buttocks and thighs. The ruptured lesions appear as pigmented macules.

☆ Please cite this article as: Agusti-Mejias A, et al. Melanosis pustulosa transitoria del recién nacido. Actas Dermosifiliogr.2013;104:84-5.

TNPM presents as subcorneal or intraepidermal pustules composed mainly of neutrophils; this finding helps to differentiate TNPM from NTE, in which there is a predominance of eosinophils.[1,3,7,10]

In conclusion, we must be aware that TNPM is a benign condition with no systemic manifestations and it does not require treatment. This entity can be confused with serious infections, and patients with TNPM may be administered empirical antibiotic treatment or undergo invasive tests. It is essential that pediatricians and dermatologists are aware of TNPM in order to avoid unnecessary additional tests or treatments.

References

1. Ferrándiz C, Coroleu W, Ribera M, Lorenzo JC, Natal A. Sterile transient neonatal pustulosis is a precocious form of erythema toxicum neonatorum. Dermatology. 1992;185:18–22.
2. Ramamurthy RS, Reveri M, Esterly NB, Fretzin DF, Pildes RS. Transient neonatal pustular melanosis. J Pediatr. 1976;88: 831–5.
3. Wagner A. Distinguishing vesicular and pustular disorders in the neonate. Curr Opin Pediatr. 1997;9:396–405.
4. Merlob P, Metzker A, Reisner SH. Transient neonatal pustular melanosis. Am J Dis Child. 1982;136:521–2.
5. Wyre Jr HW, Murphy MO. Transient neonatal pustular melanosis. Arch Dermatol. 1979;115:458.
6. Barr RJ, Globerman LM, Werber FA. Transient neonatal pustular melanosis. Int J Dermatol. 1979;18:636–8.
7. Mebazaa A, Khaddar Kort R, Cherif F, Mokni M, Haouet S, Ben Osman A. Transient pustular eruption in neonates. Arch Pediatr. 2011;18:291–3.
8. Menni S, Boccardi D, Crosti C. Neonatal toxic erythema: clinico-epidemiologic characteristics and recent pathogenic hypothesis. Pediatr Med Chir. 2005;27:22–5.
9. Van Praag MC, Van Rooij RW, Folkers E, Spritzer R, Menke HE, Oranje AP. Diagnosis and treatment of pustular disorders in the neonate. Pediatr Dermatol. 1997;14:131–43.
10. Chia PS, Leung C, Hsu YL, Lo CY. An infant with transient neonatal pustular melanosis presenting as pustules. Pediatr Neonatol. 2010;51:356–8.

A. Agusti-Mejias,[a,*] F. Messeguer,[b] I. Febrer,[a] V. Alegre[b]

[a] *Servicio de Dermatología, Hospital General Universitario de Valencia, Valencia, Spain*
[b] *Servicio de Dermatología, Instituto Valenciano de Oncología, Valencia, Spain*

* Corresponding author.
E-mail address: annaagusti@comv.es (A. Agusti-Mejias).

Multifocal Fixed Drug Eruption Probably Induced by Mefenamic Acid☆

Exantema fijo medicamentoso múltiple probablemente inducido por ácido mefenámico

To the Editor:

Mefenamic acid is a nonsteroidal anti-inflammatory inhibitor of cyclooxygenase 1 and 2 that is marketed in Spain under the name of Coslan (Pfizer). According to the summary of product characteristics, it is indicated for the treatment of pain, inflammation, and fever of any etiology, dysmenorrhoea, menorrhagia due to dysfunctional causes, rheumatoid arthritis, and acute or chronic gout. It can cause cardiovascular, genitourinary, gastrointestinal, hepatic, hematologic, respiratory, and cutaneous adverse effects. Fixed drug eruption (FDE), and multifocal FDE in particular, is an infrequent cutaneous adverse effect of mefenamic acid.[1]

A 36-year-old woman with no relevant medical history apart from occasional treatment with mefenamic acid for dysmenorrhea (Coslan capsules, 250 mg/8 h) consulted for 4 skin lesions that had appeared some months earlier. She reported that the lesions occasionally caused a burning sensation but that there were no other associated symptoms. Skin examination revealed 4 round, well-demarcated, brownish-grayish macular lesions on her right shoulder, arm, and thigh, and on her left hip; the lesions measured between 1.5 and 2 cm in diameter (Fig. 1A). On suspecting FDE due to mefenamic acid, we asked the patient if she noticed any changes in the lesions when she took this drug, and she stated that while she had noticed that the lesions got worse during her period, she had not related this to the drug. We reexamined the patient after an oral challenge with the drug and confirmed worsening of the lesions (Fig. 1B). Skin biopsy showed vacuolar interface dermatitis with necrotic keratinocytes and a predominantly lymphohistiocytic inflammatory infiltrate with neutrophils and eosinophils (Fig. 2). Extravasation of red blood cells was also observed in the papillary dermis. Based on the clinical and histopathologic findings, a diagnosis of multifocal FDE due to mefenamic acid was made. Patch tests performed with the series recommended by the Spanish Contact Dermatitis and Skin Allergy Research Group (GEIDAC) and Coslan 30% in petrolatum applied directly to healthy and lesional skin were negative. The patient was advised to stop taking mefenamic acid. The lesions cleared gradually and only slight residual hyperpigmentation remained 6 months after the initial visit.

FDE is a skin reaction characterized by skin and/or mucosal lesions that appear at the same site each time the offending drug is taken. It usually manifests as 1 or more round hyperpigmented macular lesions that may exceptionally be accompanied by systemic symptoms, such as fever, anorexia, general malaise, nausea, and diarrhea.[2] Some patients may also develop multiple, widespread lesions.[1,3,4] A wide range of drugs can trigger FDE, but the most common

☆ Please cite this article as: Pérez-Pérez L, et al. Exantema fijo medicamentoso múltiple probablemente inducido por ácido mefenámico. Actas Dermosifiliogr.2013;104:85-7.