

production run with hydrogen peroxide and rinsed with deionized water. As moisture may remain in the less accessible points of the system (bends and filters), Kathon CG is added to the rinse water to ensure a completely sterile process.

As a result of this finding, the company marketing the cream compensated the patient and changed the procedure for cleaning the machinery, replacing the Kathon CG in the rinse water with other biocides (methylparaben, propylparaben, and diazolidinyl urea).

We believe that the very small amount of methylchloroisothiazolinone/methylisothiazolinone that may be contained in the finished product is due to contamination. The rinse water which is used to clean the packaging machine contains Kathon CG and may briefly come into contact with the cream, especially in the first few bottles of the production run. Although it would have been advisable to determine the presence of Kathon CG in the content of the bottle used by the patient, it was not possible to do so because of the technical difficulty involved.

The patient's atopic predisposition and her work, in which she uses the cream daily, probably accentuated the problem and caused the severe acute dermatitis.

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- I. Cervigón-González,^{a,*} L. Conde-Salazar,^b
L.M. TorresIglesias,^a Á. Palomo-Arellano^a
- ^a *Unidad de Dermatología, Hospital General Nuestra Señora del Prado, Talavera de la Reina, Toledo, Spain*
^b *Unidad de Dermatología Laboral, Instituto de Salud Carlos III, Madrid, Spain*
- * Corresponding author.
E-mail address: icervigon@sescam.jccm.es
(I. Cervigón-González).

Transient Myeloproliferative Syndrome Associated With Down Syndrome[☆]

Síndrome mieloproliferativo transitorio asociado a síndrome de Down

To the Editor:

Transient myeloproliferative syndrome (TMPS) is a usually self-limiting hematologic syndrome characterized by the proliferation of myeloblasts in peripheral blood and bone marrow; it affects neonates with Down syndrome. It may be associated with skin lesions and so differential diagnosis with other vesiculopustular rashes may be required.

We report the case of a full-term baby girl with Down syndrome and a vesiculopustular rash located predominantly on the face, with lesions distributed unevenly on the face, scalp, and torso (Fig. 1). No prenatal tests were performed until the second half of the pregnancy, when ultrasound revealed mild heart abnormalities. Down syndrome was confirmed by karyotype in the first week of life. Tests carried out in the first week of life showed the following results: hemoglobin, 22.7 g/dL; platelets, 46 000/ μ L; and

leukocytes, 49 000/ μ L, with 28% blasts in blood. Cultures for bacteria, fungi, and viruses were negative. A smear of one of the pustules showed intermediate mature granulocytic elements and some blasts. The bone marrow showed no signs of leukemia. A skin biopsy revealed a subcorneal vesicular pustule filled with polymorphonuclear leukocytes and epidermal exocytosis (Fig. 2). Both the blood and skin abnormalities resolved spontaneously in the first weeks of life.

TMPS associated with Down syndrome is a self-limiting condition that presents with blasts in the peripheral blood, erythrocytosis, thrombopenia, and coagulation disorders.¹ It may or may not cause skin lesions, which consist of vesicular pustules initially grouped on the head and later extending to the torso; these lesions may present the Koebner response and appear in areas susceptible to rubbing or pressure. Pathogenesis involves mutations of the *GATA-1* gene.² The differential diagnosis should include diseases that present vesicular-pustular rashes in neonates³ (Table 1), whether infectious, such as congenital candidiasis, impetigo, scabies, scalded skin syndrome, or herpes, or noninfectious, such as miliaria, toxic erythema, transient neonatal pustular melanosis, neonatal acne, blistering autoimmune diseases, epidermolysis bullosa, urticaria pigmentosa, or incontinentia pigmenti. In general, no treatment is required, other than support measures and follow-up, owing to the increased risk of developing acute leukemia in the first years of life¹⁻³; however, chemotherapy drugs such as cytosine ara-

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Figure 1 Vesiculopustular lesions predominantly on the face and, to a lesser extent, the torso.

binoside and, more recently, rasburicase have been used in severe forms.⁴

In conclusion, this entity should be taken into account when diagnosing vesiculopustular rashes in neonates. TMPS

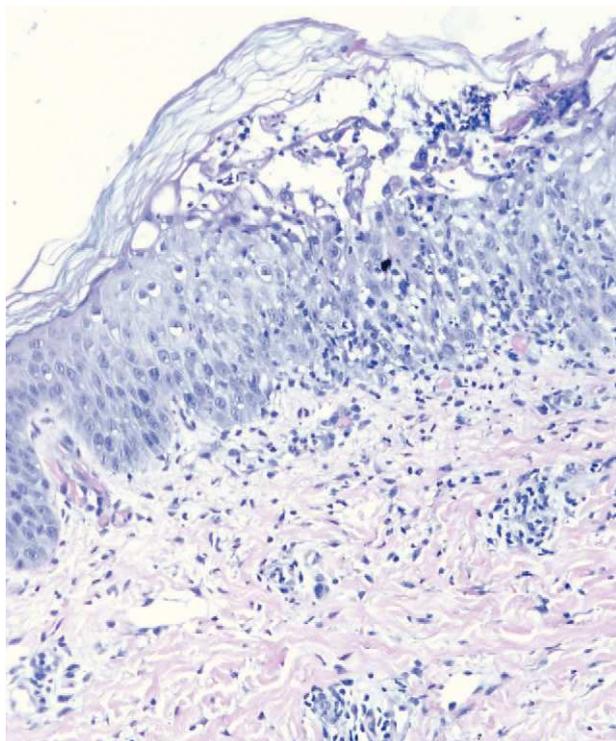


Figure 2 Histology image (hematoxylin-eosin, original magnification, $\times 40$) of a subcorneal pustule filled with polymorphonuclear leukocytes showing epidermal exocytosis.

Table 1 Principal Differential Diagnosis of Vesicular Pustules in Neonates.

Noninfectious Diseases

- Miliaria
- Toxic erythema
- Transient neonatal pustular melanosis
- Neonatal acne
- Autoimmune blistering disease
- Epidermolysis bullosa
- Urticaria pigmentosa
- Incontinentia pigmenti

Infectious Diseases

- Congenital candidiasis
- Impetigo
- Scabies
- Scalded skin syndrome
- Herpes

associated with Down syndrome is a rare condition that presents with blasts in the peripheral blood, erythrocytosis, thrombopenia, and coagulation disorders. Although treatment is generally not required, the patient should be followed up for several years, owing to the increased risk of leukemia during this time.

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P. Borregón,^{a,b,*} J. Menárguez,^a N. Navarro,^b M. Campos^{a,b}

^a *Servicios de Dermatología, Anatomía Patológica, Hospital General Universitario Gregorio Marañón, Madrid, Spain*

^b *Servicios de Dermatología, Neonatología, Hospital General Universitario Gregorio Marañón, Madrid, Spain*

* Corresponding author.

E-mail address: paloma_borregon@hotmail.com (P. Borregón).