Mycosis Fungoides in Pediatric Patients: A Diagnostic Challenge

Mycosis fungoide en pacientes pediátricos: un reto diagnóstico

Fortunately, few cases of primary cutaneous lymphoma and mycosis fungoides (MF) are seen in pediatric patients. In my experience, as head of the Lymphoma Unit at Hospital Universitario Basurto, in Bilbao, Spain, I have seen just 2 cases of MF, both classic, with an onset before the age of 18 years. The course of disease was more aggressive than usual in both patients. One of the patients died at the age of 33 years following allogeneic hematopoietic progenitor cell transplantation and the other developed tumor-stage MF (IIIB).

Eosinophils as a Warning Sign

El eosinófilo como alerta

Eosinophils are effector cells of the innate immune system that play a key role in the body’s defense against parasites and tumors. Their main function is to eliminate biological targets, such as helminths, protozoa, bacteria, and tumor cells. The pathological circumstances that trigger an increase in the number of eosinophils in tissues or peripheral blood are very varied. The literature includes very few review articles dealing specifically with eosinophilic dermatoses, and attempts to draw up a preliminary classification are even rarer.

In 2001, Byrd et al. coined the term eosinophilic dermatosis of myeloproliferative disease, for which they proposed the following clinical and pathological diagnostic criteria: a pruritic papular or vesiculobullous eruption refractory to standard treatment; a concurrent diagnosis of blood dyscrasia or hematologic malignancy; an eosinophil-rich lymphohistiocytic infiltrate in the superficial and deep dermis; and the exclusion of other causes of tissue eosinophilia. This description corresponds to the dermatosis originally described in 1965 by Weed as a mosquito bite-like reaction. More recently, a new nomenclature has been proposed: eosinophilic dermatosis of hematologic malignancy. It is a reactive process without specific hematologic cell infiltration. The etiology and pathogenesis is poorly understood, but it is thought to be associated with the immune dysregulation found in conditions such as chronic lymphocytic leukemia.

In this issue of Actas Dermosifiliográficas, Bettina Cervini A et al. present 14 cases of MF, most of which were hypopigmented, from a pediatric hospital. I recently had the opportunity to see a similar case in an immigrant girl who had been diagnosed in Colombia. Hypopigmented MF is more common in patients with dark skin (Fitzpatrick skin types IV–V), as evidenced by the literature, and we may therefore see an increasing number of cases in our setting. The main entity that should be contemplated in the differential diagnosis is pityriasis alba. This is a very common condition in pediatric settings, but the possibility of hypopigmented MF needs to be considered in cases that are refractory to treatment or that do not follow a typical course.

Reading this article will help us to do this.

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References

Antimicrobial Photodynamic Therapy: An Unexplored New Field

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For several years, photodynamic therapy (PDT) has been a treatment option for skin conditions such as nonmelanoma skin cancer. Recently, this technique has been studied for skin infections, particularly those in which biofilms have formed. The antibacterial, immunoregulatory, and regenerative effect of PDT may enable healing of antibiotic-resistant infections and infections at sites with limited antibiotic penetration. The technique may also be useful in patients for whom a local treatment is sought free of the side effects of systemic antibiotic therapies. The group who published this article has extensive experience in the use of PDT for the treatment of onychomycosis and other infections, such as sporotrichosis, Scytalidium, Demodex or Candida, and for biofilm-mediated processes such as suppurative hidradenitis. The authors report an open-label series in which several superinfected ulcers achieved healing with PDT using methylene blue and visible light. Methylene blue is a photoactivated phenothiazine that is suited to inducing cytotoxicity at the bacterial membrane thanks to its cationic nature. It is cheap and its incubation time is relatively short, thus facilitating its use in daily clinical practice. The success reported by these authors should encourage controlled, randomized studies to provide stronger evidence for PDT in this context.

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