Pyoderma Gangrenosum With Ulcerative Colitis Successfully Treated With Ustekinumab

Pyoderma gangrenosum is a rare neutrophilic skin disease that may be idiopathic or associated with systemic disease such as inflammatory bowel disease, arthritis, paraproteinemia, or blood cancers. While it is true that topical or intralasional therapies can be used in patients with isolated lesions that have little impact on quality of life, in most cases, systemic immunosuppressant treatment is required. Corticosteroids and ciclosporin are used as the first line in systemic treatments. Other reported alternatives, although not approved for this indication, include mycophenolate mofetil, anti-TNF, intravenous immunoglobulins, interleukin (IL) 1 antagonists, and ustekinumab (anti-IL-12/23).1

A 33-year-old woman diagnosed with ulcerative colitis since the age of 17 years had presented multiple pyoderma gangrenosum lesions on the lower limbs throughout the course of the disease. The patient had been treated with multiple therapies that, in chronological order, included 6-mercaptopurine, ciclosporin at 3-5 mg/kg/d for 5 months, intravenous infliximab at 5 mg/kg every 4 weeks, subcutaneous adalimumab at 40 mg/wk, plasmapheresis every 15 days, tacrolimus oral at 8 mg/d, intravenous vedolizumab at 300 mg every 4 weeks, and subtotal colectomy. Ciclosporin, infliximab, adalimumab, and tacrolimus oral had been administered with the above treatments for the indication of pyoderma gangrenosum and topical treatment was associated with intralasional triamcinolone acetonide, and topical tacrolimus and clobetasol propionate. All previous treatments were associated with prednisone at doses of up to 50 mg/d. At one point in the course of the disease, the patient presented left pretilial pyoderma gangrenosum measuring 11 x 7 cm. The lesion, which had appeared 5 months earlier, was difficult to manage, corticosteroid-dependent (it worsened when prednisone was reduced to below 20 mg/d), and had a considerable impact on quality of life (Fig. 1). At the time, the patient was undergoing treatment with intravenous vedolizumab at a dosage of 300 mg every 4 weeks, prednisone at 50 mg/d, and topical corticosteroids. In light of the refractory nature of the disease and as multiple lines of treatment had been exhausted, it was decided to instate treatment with subcutaneous ustekinumab 90 mg (week 0, 4, 10, and every 8 weeks thereafter) associated with ciclosporin at a dose of 3 mg/kg/d, with an excellent response of the pyoderma gangrenosum, which resolved completely in 12 weeks, making it possible to reduce the dosage of prednisone to 5 mg/d (Fig. 2). After 10 months of follow-up, the patient has maintained treatment with ustekinumab every 8 weeks with very good results; this has made it possible to withdraw the ciclosporin and reduce the prednisone to 2.5 mg every 2 days.

In 2011, Guenova et al reported the first case of pyoderma gangrenosum successfully treated with ustekinumab.2 Those authors suggested that IL-23 is implicated in the pathogenesis of immunologic diseases such as psoriasis and inflammatory bowel disease; they therefore studied the expression of this interleukin in the patient’s lesion biopsy and observed overexpression of IL-23 compared to biopsies of healthy skin. Ustekinumab was therefore proposed as a targeted therapy for treatment of the pyoderma gangrenosum.2 Since then, 5 more cases have been reported in the literature with good response to ustekinumab at doses ranging from 45-90 mg every 8 weeks to 135 mg every 6 weeks (Table 1).2-7

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In conclusion, we present a new case of pyoderma gangrenosum associated with ulcerative colitis, with good response to ustekinumab together with cyclosporin and oral corticosteroids following a lack of response to the 2 previous treatments, tacrolimus oral and anti-TNF (infliximab and adalimumab), administered together. We propose this alternative in difficult-to-manage cases of pyoderma gangrenosum that are refractory to other treatments. Further studies are required to determine the involvement of IL-23 in the pathogenesis of this disease.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References


Congenital Absence of Nails and Digital-Type Thumb due to Prenatal Phenytoin Exposure

Ausencia congénita de uñas y pulgar digitalizado debida a la exposición prenatal a fenitoína

To The Editor,

Anonychia i.e. absence of nails constitutes one of the component of limb anomalies in Fetal hydantoin syndrome (FHS), apart from the hypoplastic fingernails and distal phalanges, a digital-type thumb i.e. long, slender finger like-thumb, abnormal palmar creases, increased frequency of low arch, digital dermal ridge patterns and hip dislocation. Craniofacial anomalies, ocular defects, and growth abnormalities are the other systemic manifestations of the FHS; however isolated simple anonychia i.e. absence of fingernails and toenails, without other congenital anomalies and slender, finger-like thumb is an extremely rare finding of FHS.1

Case Report

A 15-year-old boy, otherwise healthy presented with absence of nails of both hands’ ring fingers and little fingers and both feet’s 5th toenails and hypoplastic nails of the 2nd, 3rd and 4th toes, since birth (Figure 1). He was born of non-consanguineous marriage. His mother was suffering from epilepsy and was prescribed oral phenytoin 100 mg three times daily since her 20 years of age. Phenytoin was continued throughout her pregnancy and drug levels were not monitored. Along with phenytoin, folic acid 5 mg once daily was prescribed to the patient. Patient’s past and family history was insignificant and his sibling didn’t suffer from any anomalies. He was of normal intelligence. On examination there was also flexion deformities of the distal interphalangeal joints and slight extension of his proximal interphalangeal joints of the left middle and ring finger and right middle finger (Figures 2 and 3).

https://doi.org/10.1016/j.adengl.2018.03.025
1578-2190/
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His thumbs were thinner than the normal. Rest of his general and systemic examination was insignificant. Lab-

Figure 1 Total absence of nails of 5th toes.

Figure 2 Complete absence of nails of little and ring finger of the right hand with flexion deformity of the middle finger.

Figure 3 Anonychia of the ring and little finger of the left hand with flexion deformity of the middle and ring finger.