

Ultrastructural studies and immunophenotyping have shown these cells to be fibroblasts and myofibroblasts. The immunohistochemical profile is very variable, although vimentin is frequently expressed. CD34 expression has been reported in some cases; this can complicate the diagnosis as dermatofibrosarcoma protuberans must then be considered in the differential diagnosis. Immunohistochemistry is useful to orient the pathologist, but the diagnosis is fundamentally morphological. Treatment is surgical, and recurrence is rare after excision with an adequate margin.

Tardío et al.<sup>4</sup> gathered a total of 34 cases in children and 56% of those tumors were found on the neck, as in the 2 patients we describe. A primary characteristic of pediatric dermatomyofibroma therefore appears to be its tendency to arise in the cervical region. In adults, on the other hand, the tumor arises most frequently on the shoulders or proximal region of the limbs and is less common on the neck. The second characteristic is that the tumor predominantly affects boys. In adults, 90% of cases are in women.<sup>5-8</sup> It has been speculated that the tumor may spontaneously regress in male children at puberty and persist in girls, leading to a higher prevalence in adult women.

The importance of this disease is its differentiation from other tumors formed of spindle cells, such as desmoid tumor and dermatofibrosarcoma protuberans. In addition, other mesenchymal lesions more typical of the pediatric age range, such as fibrous hamartoma of infancy, myofibromatosis, connective tissue nevus, and smooth muscle hamartoma, must be excluded. A guide to the differential diagnosis of these tumors is presented in [Table 1](#).

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## Skin Toxicity Due to Telaprevir: A New Drug We Should Be Familiar With<sup>☆</sup>

### Toxicidad cutánea por telaprevir: un nuevo fármaco que es necesario conocer

To the Editor:

Hepatitis C virus (HCV) infection is common, with an incidence of 3% in the general population. It can present as acute hepatitis or, more frequently, as chronic asymptomatic hepatitis, which, over years, can progress to more severe disease, such as cirrhosis of the liver or hepatocellular carcinoma. Until recently, the treatment of chronic hepatitis C infection has been based on the combined use of pegylated interferon alfa-2a or 2b plus ribavirin, achieving a persistent virological response in less than 50% of patients with

genotype-1 infection. This has made it necessary to develop new treatments, one of which is telaprevir (Incivo), a novel drug whose main dose-limiting side effect is skin toxicity. In order to make dermatologists aware of the existence of this new drug, we present the case of a 58-year-old woman treated with telaprevir.

The patient had been diagnosed with chronic HCV genotype 1 infection, but had no other past medical history of interest. She had previously been treated with peginterferon and ribavirin, achieving a transitory response with subsequent relapse. It was decided to start triple therapy by adding telaprevir to the aforementioned drugs, achieving an undetectable viral load in week 3 of treatment. She was seen in dermatology outpatients in week 4 of treatment for the appearance of persistent, pruritic skin lesions that had started to appear 4 days earlier. Physical examination revealed an urticarial rash ([Fig. 1](#)) with an annular morphology that affected around 30% of the body surface area. The rash was located on the proximal third of the lower limbs and on the back ([Fig. 2](#)). The lesions blanched under pressure and the mucosae were not affected. Topical therapy with betamethasone 17-valerate was prescribed and weekly follow-up was performed until the end of treatment.

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**Figure 1** Urticarial rash with an annular morphology that affected around 30% of the body surface area and was most prominent on the proximal third of the lower limbs.

During this period the lesions showed no progression and they resolved 2 weeks after completing the course of telaprevir.

Knowledge of the replication cycle of HCV and characterization of the viral enzymes has led to the identification of new therapeutic targets that inhibit these enzymes. Telaprevir is an NS3/4A protease inhibitor approved by the Food and



**Figure 2** Detail of the lesions on the back.

Drug Administration and the European Medicines Agency for the treatment of chronic HCV infection in naïve patients and in those previously treated with interferon and ribavirin for genotype 1 infection. The introduction of this drug has led to an increase in the rate of persistent viral response, and treatment time can occasionally be shortened.<sup>1</sup> However, the most important limitation to treatment comes from the drug's adverse skin effects. The recommended treatment regimen includes 12 weeks of triple therapy (telaprevir, peginterferon, and ribavirin) followed by a further 12 to 36 weeks of treatment with peginterferon plus ribavirin.<sup>2</sup> In the phase II and phase III placebo-controlled studies, the incidence of skin reactions during the 12-week treatment period with telaprevir was 56%, in comparison with 34% observed in patients treated with placebo and peginterferon alfa/ribavirin.<sup>3</sup> The skin reactions included local reactions at the site of injection and pruritic maculopapular rashes on the trunk and limbs; the reactions were usually well tolerated and showed a low probability of progression to more severe disorders.<sup>4,5</sup>

The management and treatment of the skin reaction are based on the severity of the lesions and on the presence of systemic symptoms and abnormalities in the blood tests. Grade I, or mild, is defined as a localized or limited skin rash with no systemic signs and with no mucosal involvement. Grade II, or moderate, is a reaction that affects a maximum of 50% of the body surface area and that causes no epidermal detachment. Mucosal inflammation may be present but there are no ulcers or systemic symptoms such as fever and joint pain, and no eosinophilia. Grade III, or severe, is a reaction in which the skin lesions affect more than 50% of the body surface area, or a lower percentage if any of the following characteristics are observed: presence of vesicles or bullae, mucosal ulcers, epidermal detachment, target lesions, palpable purpura, or erythema that does not blanch under pressure. Finally, grade IV, or life-threatening, is defined as the presence of acute generalized exanthematous pustulosis, a delayed drug hypersensitivity syndrome (DRESS), toxic epidermal necrolysis, or Stevens-Johnson syndrome.<sup>5,6</sup>

In patients, 90% of these reactions were grade I or II, characterized by pruritic eczematous lesions that affected less than 30% of the body surface area. Most reactions occurred during the first 4 weeks of treatment. Only a small percentage of patients treated with telaprevir developed serious skin reactions of grade III or IV.<sup>6</sup> Treatment interruption is not required for grade I or grade II reactions; in these patients, periodic follow-up should be performed until complete resolution of the reaction because of its possible progression to a severe skin reaction.<sup>7</sup> Treatment with telaprevir should only be interrupted for reactions of grade III or IV, with the subsequent sequential interruption of ribavirin and interferon if no improvement is observed over the following 7 days. Telaprevir should never be reintroduced.<sup>8</sup> The skin lesions can be treated with topical corticosteroids, but an association with systemic corticosteroids can produce a loss of efficacy of telaprevir and can modify its serum levels due to an interaction through both the CYP3A4 and the glycoprotein-P pathways.<sup>20</sup> For the same reason, the simultaneous use of telaprevir with other drugs, such as astemizole and terfenadine, is also contraindicated.<sup>9</sup> The fecal excretion of telaprevir after it undergoes hepatic



metabolism is probably the cause of anorectal symptoms such as pruritus.

In conclusion, we have presented a skin reaction to a new drug for the treatment of HCV infection. Management of this reaction requires dermatologic follow-up in order to optimize treatment.

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## Pachydermodactyly Successfully Treated With Triamcinolone Injections<sup>☆</sup>

### Paquidermodactilia tratada con éxito con infiltraciones de triamcinolona

*To the Editor:*

Pachydermodactyly, from the Greek pachy (thick), dermos (skin), and dactylos (digits), is a very rare form of acquired benign digital fibromatosis. It is characterized clinically swelling of the medial and lateral aspects of the proximal interphalangeal joints of practically all the fingers of the hands (with the exception of the thumb). We describe a clinically striking new case that responded satisfactorily to corticosteroid infiltration and we discuss the different therapeutic options available.

A 15-year-old patient with no past medical history of interest was referred to dermatology outpatients for evaluation of thickening of the second, third, and fourth fingers of both hands that had started to develop 2 years earlier. An additional finding was that the patient attended a gymnasium 4 days a week to perform weight training.

Physical examination revealed very marked, diffuse thickening at the level of the proximal interphalangeal joints of all the fingers of the hands, except the thumbs and fifth fingers. Movement was not limited (Fig. 1) and there were no others skin changes.

Histology of a skin biopsy taken from the lateral aspect of the second finger of the right hand showed thickening of the dermis with an increase both in collagen fibers and, to



**Figure 1** Pretreatment photograph showing the conspicuous, diffuse thickening around the proximal interphalangeal joints of all the fingers with the exception of the thumb and fifth finger.

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