Pentazocine is an analgesic, mainly used parenterally for moderate/severe pain. It is associated with numerous cutaneous complications, including irregular ulcers at the injection site, woody induration of skin, perilesional hyperpigmentation, fibrosing myopathy, thrombophlebitis, ulcers or other lesions in venous tracts, and with difficulty to cannulate a peripheral line. These clinical findings were studied by Prasad et al. who established criteria for this clinical picture that are especially useful when patients deny use of the drug. In these cases, it is important to examine for signs of parenteral drug abuse and to rule out other possible causes of ulceration (e.g. vasculitis, pyoderma gangrenosum, venous insufficiency, etc.). Detection of pentazocine in urine can also support the diagnosis. Our case presented no diagnostic difficulty because the patient acknowledged use of pentazocine.

The pathogenic mechanism by which pentazocine produces skin changes has not been elucidated. They have been proposed to result from precipitation of crystals of the drug on the tissue, causing skin changes has not been elucidated. They have been proposed to pentazocine. No diagnostic difficulty because the patient acknowledged use of pentazocine. Other authors postulated that ulcer formation was due to vascular ischaemia caused by a direct vasoconstrictive effect of pentazocine. The most frequent clinical finding is the formation of ulcers at the injection site. Hyperpigmentation and skin induration are frequently found around the ulcers, and cases of panniculitis and calcification have also been reported. These symptoms may be accompanied by other signs of parenteral drug abuse.

Immediate and complete withdrawal of the drug is mandatory. Subsequent conservative treatment has been reported to achieve a cure, although ulcers can take a long time to heal. Other treatment options include pentoxyphilin intralesional and/or topical corticoids, or surgical excision with graft repair. In the present patient, conservative local treatment was prescribed with antibiotic cream and occlusion, and the ulcers are slowly improving.

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Increased serum levels of interleukin-22 in patients affected by pityriasis rosea

Editor
The cause of pityriasis rosea is still unknown, but the presence of temporal case clustering, the frequent lack of recurrence, the clinical course, like in viral exanthemas, support the infectious hypothesis. The association between pityriasis rosea and human herpes virus 7 (HHV-7) is still controversial: some authors found a clear link; others did not confirm the original findings. The knowledge on the cytokine network in pityriasis rosea is still poor. We previously demonstrated that fractalkine is increased in sera of active pityriasis rosea patients. Fractalkine activates diverse intracellular signalling pathways, expressed on natural killer cells, monocytes and CD8 and CD4 T cells. The involvement of this chemokine indicates an active immunological response in pityriasis rosea.

Interleukin-22 (IL-22) is coexpressed with IL-17 by Th17 cells by IL-23 induction.

IL-22 functions by promoting the antimicrobial defense, protecting against damage.

Recently, several authors demonstrated that IL-22 is necessary for development of dermal inflammation and acanthosis in psoriasis.

To test the hypothesis of an inflammatory immune response in pityriasis rosea, we measured IL-22 circulating levels in 16 pityriasis rosea patients (6 male, 10 female; mean age, 34.36 ± 18.79 years; range, 4–64) at an early stage and in 18 sex- and age-matched controls. Each subject gave a written informed consent to the study.

Serum IL-22 was measured using an ELISA kit (R & D System, Abingdon, UK). All samples were analysed in duplicate.

Differences in IL-22 blood levels were assessed by the Student’s t-test for unpaired comparison, assuming unequal variances. Data were expressed as mean ± SD. A P-value < 0.05 was considered significant.

IL-22 levels were significantly higher in patients affected by pityriasis rosea compared to controls (17.07 ± 15.71 pg/mL vs. 7.65 ± 5.03 pg/mL, P = 0.03; Fig. 1). No correlation between IL-22 levels and age or sex was found.

Some Authors displayed that IL-21 mRNA is produced when mice are challenged with HHV-2, and its peak coincides with the onset of the adaptive immune response, suggesting a role of IL-21 in the early stages of immune response against virus infections, including HHV. IL-21, a Th17 lineage cytokine, stimulates the proliferation and differentiation of activated leukocytes and acts also by an autocrine mechanism on Th17 cells, stimulating in turn the production of IL-17, IL-21, IL-22 and the other Th17 cytokines.

IL-22 up-regulates the expression of proinflammatory molecules and several antimicrobial peptides. In the skin, IL-22 together
with IL-17 A and IL-17F regulates proliferation, differentiation and migration of keratinocytes. Zheng et al. have recently shown that IL-22 blood levels are elevated in psoriatic patients, and that IL-22 mediates dermal inflammation and acanthosis induced by IL-23.5

This paper is the first evidence of a significant increase of IL-22 levels in pityriasis rosea, supporting indirectly the hypothesized involvement of HHV-7 in the pityriasis rosea pathogenesis. In fact, an antigenic trigger as a reactivated quiescent HHV-7, via the Th17 cells stimulation and the IL-21 production, could boost IL-22 secretion by an autocrine mechanism.5

Since samples were collected at the onset of the disease, we assume that Th17 cells may play a role in the beginning of the immune response to the initial insult. IL-22, in turn, enhancing the production of proinflammatory and antimicrobial molecules, could start an inflammatory response that limits the spread of the hypothesized viral infection. In fact, pityriasis rosea has a self-limiting behaviour and lasts about 6–8 weeks on average.

In conclusion, the present results underscore the involvement of the immune system in pityriasis rosea and may contribute to a better definition of the skin defense network.

Further studies are needed to clarify the relationship between IL-22 circulating levels and HHV-7 infection in pityriasis rosea.

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Successful treatment of vitiligo in a 6-year-old child by topical anaesthesia and epidermal grafting

Editor

Vitiligo is a common skin disease in children. Compared to vitiligo in adults, childhood vitiligo has some clinical characteristics such as increased segmental involvement and a strong autoimmune disease association.1 Treatment modalities include steroids, immune response modifiers such as tacrolimus and pimecrolimus, and phototherapy. In addition, surgical therapy such as epidermal grafting has been useful in patients with resistant and stable vitiligo.

We report on a case of childhood vitiligo where we performed epidermal grafting using topical anaesthesia. A 6-year-old boy presented with a well-defined white patch of 2-year duration around the left side of the upper lip (Fig. 1a). He was previously treated with phototherapy at another hospital, but the result was unsatisfactory. His parents wanted the lesion removed as soon as possible because it was easily noticed on the face. Based on our experience with epidermal grafting, it seemed like an appropriate approach to this localized lesion. The epidermal grafting was planned using topical anaesthesia.

To reduce pain, EMLA® cream (lidocaine + prilocaine) was applied to the donor and recipient areas 1 h before the procedure and then the areas were covered (occlusive dressing) to enhance the penetration of the cream. For the induction of suction blisters, 10-mL syringes were used. Negative pressure at 200 mmHg was applied to normally pigmented skin of the anterolateral thigh. It took 1.5 h to create the blisters. To remove the epidermis of vitiligo lesion (recipient area), a CO2 laser (20C model, Sharplan Laser Inc., NJ) was used as previously reported.2 Figure 1(b) shows the epidermal graft immediately after placing it onto the recipient area. The procedure of the epidermal grafting was well tolerated. There were no complications except for mild hyperpigmentation.

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