website also mentions that the product produces a natural cauterization of the skin growth and leaves no scars. There is no recommendation to consult a dermatologist for a correct diagnosis of lesions. Because the preparation is considered to be a herbal product rather than a medicine, it is not subject to approval by drug agencies.

According to the manufacturers, Wart & Mole Vanish consists of a number of herbal extracts—cashew plant *(Anacardium occidentale)*, fig plant *(Ficus carica)*, celandine *(Chelidonium majus)*, and lemon *(Citrus Limonium)*—and deionized water and talc. The caustic nature of the product is probably attributable either to the highly sclerosing phenanthridine alkaloids contained in the celandine, or to an oil called cardol produced by the cashew plant.[2] Application of this product to melanocytic lesions may interfere with the correct treatment of melanomas or lead to misdiagnosis of a benign melanocytic nevus as a melanoma, a lesion known as a pseudomelanoma.

In the last decade, there have been several reports of patients who have treated different types of skin growths with products purchased over the Internet.[3,4] A warning about the use of Wart & Mole Vanish for the treatment of basal cell carcinoma was reported in 2007,[5] and the case of an 11-year-old boy who developed a keloid in the central chest region after applying the same product was reported recently.[6]

Our case, which is the first report of multiple keloids after using Wart & Mole Vanish, represents yet another reminder of the danger posed by this treatment, which is not regulated by health authorities. Considering its distribution outside the official healthcare system, it is likely that the incidence of adverse effects is much higher than reported in the literature. The classification of Wart & Mole Vanish as a nonpharmacological product is gross misinformation that would be inadmissible for other products; furthermore, nobody is held accountable for any adverse effects, leaving public health systems to assume responsibility.

In summary, our case is a good example of how the Internet is creating new medical situations. As dermatologists, we need to take these new sources of information into account, and should warn patients of the risks that may result from misinterpretation of such information. We believe that the content of websites where products such as Wart & Mole Vanish are promoted and distributed needs to be reviewed by the relevant authorities.

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Granular Parakeratosis: Disease or Reactive Response?

Paraqueratosis granular. ¿Una entidad clínica o un patrón reactivo?

To the Editor:

Axillary granular parakeratosis (GP), first described by Northcutt in 1991,[1] is a rare disorder, with fewer than 50 cases published in the literature. Various authors report that the condition is rarely suspected by the clinician, and the definitive diagnosis is established by the dermatopathologist.

A 50-year-old woman with no personal or family history of relevance consulted for nonpruritic lesions that had appeared progressively in both axillas over the previous 4 months. The patient used several antiperspirant products regularly.

Physical examination revealed multiple brownish papules with a diameter of several millimeters and a granular, hyperkeratotic surface (Figure 1). The lesions were asymptomatic and tended to become confluent in various areas, forming small plaques.

No lesions were observed on other areas of the skin, and palpation revealed no enlarged locoregional lymph nodes. The patient was otherwise healthy and had no associated systemic symptoms.

Hematoxylin–eosin staining of a biopsy from one of the axillary papules revealed an epidermis with compact parakeratosis, thickening of the stratum corneum, and persistence of the granular layer. The stratum corneum presented characteristic fine granules corresponding to keratohyalin granules (Figure 2). The dermis showed a degree of vascular proliferation and ectasia, as well as a mild superficial perivascular infiltrate. A diagnosis of axillary GP was made on the basis of these findings.

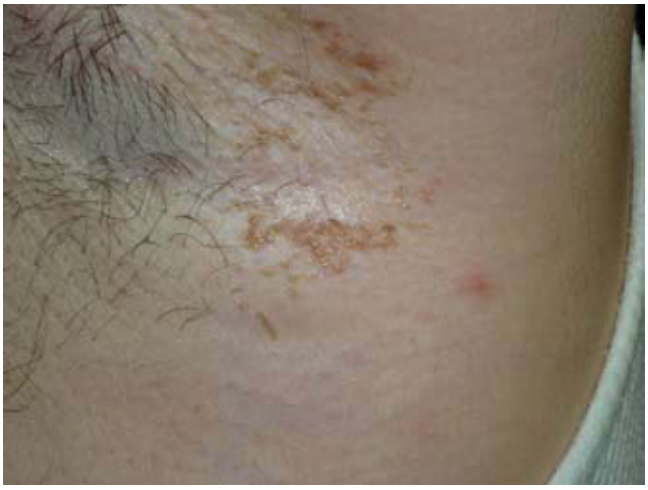

Figure 1 Presence of multiple brown hyperkeratotic papules with a cobblestone surface that tend to become confluent, forming small plaques.

The etiology of axillary GP is still unknown. Some authors suggest an external physical irritant, such as chronic friction or occlusion, or a chemical factor, such as antiperspirants or deodorants, as the possible cause. However, cases have been reported in patients without this history.

Few cases of axillary GP have been published. In a literature review, we found cases with the same well-delimited, confluent, usually asymptomatic, brownish hyperkeratotic papules with histologic changes similar to those of axillary GP[2-4] located in other areas of chronic irritation. These cases include children with diaper dermatitis—in whom lesions develop in the irritated area, probably secondary to persistent contact with irritant substances—as well as patients with dermatophytosis who develop papules possibly caused by chronic scratching of the lesions.[2-4] This possible etiology is supported by Scheinfeld et al,[5] who reported a series of 18 patients with GP, in some of whom the disorder affected nonintertriginous areas. Our experience, along with other reports in the literature,[1-5] suggests that this is not actually a specific clinical condition, but rather a cutaneous reactive pattern that manifests in subjects with a particular predisposition to develop these changes when chronically exposed to an irritant.

Differential diagnosis of GP should include Hailey-Hailey disease, pemphigus vegetans, acanthosis nigricans, Darier disease, inverse psoriasis, dermatophytoses, contact dermatitis, and pigmented and hyperkeratotic napkin dermatitis. This last condition is clinically and histologically similar to axillary GP, but does not have the characteristic granules in the stratum corneum. Therefore, some authors consider pigmented and hyperkeratotic napkin dermatitis a variant of GP.[2]

Compact parakeratosis associated with granules in the corneocytes is the defining characteristic of GP (regardless of whether or not the phenomenon is localized to the orifice

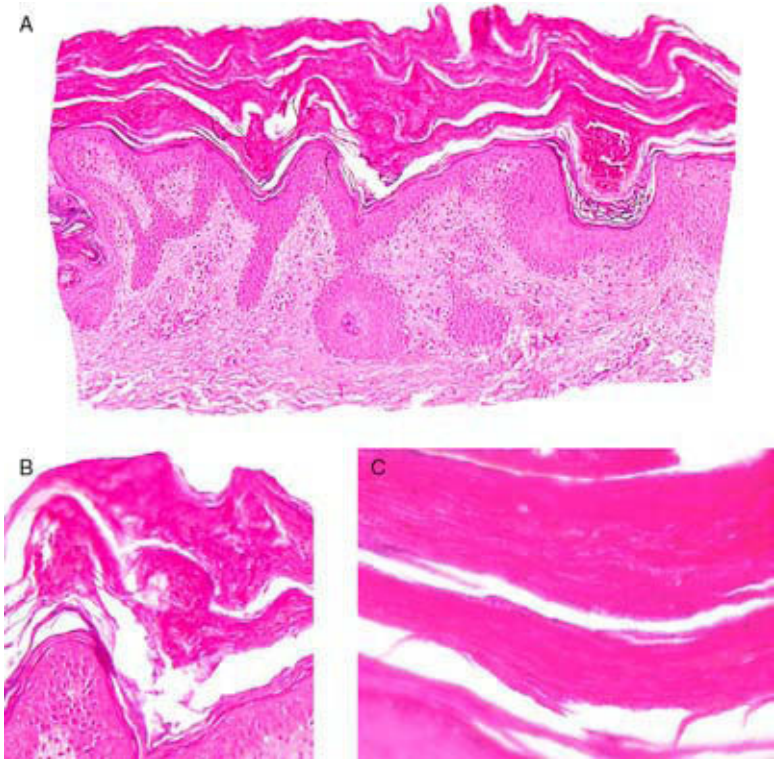

Figure 2 A, Epidermis with compact parakeratosis, thickened stratum corneum, and preservation of the granular layer associated with a dermis with vascular ectasia and a mild superficial perivascular lymphocytic infiltrate (hematoxylin-eosin, original magnification ×40). B and C, Stratum corneum with fine granules, corresponding to keratohyalin granules (B, hematoxylin-eosin, original magnification ×100) and C, hematoxylin-eosin, original magnification ×400).

of the hair follicles) and differentiates it from the other conditions.[5] Histology of tissue obtained by curettage of a papule is sufficient to establish the definitive diagnosis.

Although there are reports of GP that resolved spontaneously once the irritant was eliminated, the lesions usually persist. A number of therapeutic modalities, including topical and oral preparations of retinoids, vitamin D derivatives (calcipotriol, tacalcitol), topical corticosteroids, ammonium lactate, cryotherapy, and antibiotics have been used with variable responses.[2-5] In our patient, the lesions resolved almost completely with methylprednisolone aceponate 0.1% cream twice daily for 15 days.

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Agave americana Causing Irritant Contact Dermatitis with a Purpuric Component

Dermatitis irritativa de contacto por *Agave americana* con componente purpúrico

To the Editor:

Agave americana, commonly known as the century plant, is a subtropical perennial plant of the family Agavaceae that is used in medicine, foodstuffs, and textiles. Since its importation during the discovery of America, *Agave americana* has spread over the European part of the Mediterranean basin. A large population of this plant can be found in Spain, on the coasts of Andalusia, Murcia, and Valencia, where it has adapted exceptionally well. The sap of this plant has irritant properties due its calcium oxalate crystals, oxalic acid, and saponins.

We report the case of a 37-year-old man with no relevant past history who attended the emergency dermatology clinic because of the appearance, 48 hours earlier, of intensely pruritic lesions on the upper and lower limbs. The patient stated that, when working in the garden, he had used a chainsaw to cut down an *Agave americana* plant (Figure 1). He had been splashed with a great deal of sap and lesions had subsequently appeared on the areas of his body not covered by clothing.

Physical examination revealed numerous shiny, confluent papules and vesicles on these areas. In some areas, purpuric lesions that did not disappear on pressure were also observed. The affected areas were clearly delimited, with well-defined borders, and there were artifacts in the areas protected by clothing (Figure 2). The patient also reported a sensation of fever and discomfort in the 8 hours following the event.

Complete blood count, biochemistry, and coagulation studies were normal. Skin biopsy revealed parakeratosis, epidermal atrophy with necrotic keratinocytes, marked edema of the dermal papillae with erythrocyte extravasation, and a perivascular and periadnexal lymphocytic infiltrate (Figure 3).

Treatment with topical betamethasone and fusidic acid and oral antihistamines led to complete resolution in 7 days.

Few cases of contact dermatitis caused by the components of *Agave americana* sap have been reported.[1-3] This condition usually presents with very rapid onset of intense itching and burning associated with the appearance of marked erythema and edema in the affected area. Papular and vesicular lesions with a linear distribution following the trajectory of the splashing then develop. Purpuric lesions such as those appearing in our case have only been

Figure 1 *Agave americana.*