

## Recurrent melanocytic nevi after Solcoderm therapy: A new cause of pseudomelanoma

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A recurrent melanocytic nevus typically presents as repigmentation within a few weeks after its incomplete removal. This phenomenon was originally termed *pseudomelanoma* because the recurrent lesion may have atypical histologic features that make it difficult to differentiate from malignant melanoma. Review of the histologic features of the original lesion is sometimes critical in making this differentiation.<sup>1</sup>

Most instances of recurrent nevi have been described after partial surgical removal,<sup>1,2</sup> usually by shave excision. Recurrent nevi have also been reported after surgical excision followed by intralesional injection of triamcinolone acetonide to prevent keloid formation,<sup>3</sup> shave excision followed by electrodesiccation,<sup>1,2</sup> laser therapy,<sup>4</sup> and shave excision followed by the application of Monsel's solution for hemostasis.<sup>5</sup> In the latter instance, Monsel's solution caused a confusing dermal artifact.<sup>6</sup>

Solcoderm is a solution composed of organic and inorganic acids with copper ions that is used in Europe and Israel to remove superficial skin lesions.<sup>7,8</sup> The solution destroys a lesion by tissue mummification.<sup>9,10</sup> A scar results after treatment.<sup>9</sup> Because treatment without local anesthesia is one of the advantages of this method, a biopsy is rarely performed before treatment.

We report the case of a patient in whom recurrent nevi developed after treatment with Solcoderm. To our knowledge, this is the first report of this complication. It is also the first report of the recurrent nevus phenomenon after chemical treatment of a nevus.

### CASE REPORT

A 39-year-old woman underwent treatment with Solcoderm of two nevi, one on her back and one on her ab-



**Fig. 1.** Recurrent nevus after treatment with Solcoderm shows (1) increased number of melanocytes along dermoepidermal junction and above it; (2) dermal scar; and (3) underlying nests of typical nevus cells. ( $\times 40$ .)

domen. Prior biopsies had not been performed. The treatment was performed twice at 6-month intervals. Three months after the second treatment, the nevi were excised because of persistent pigmentation.

Histologic examination of both nevi revealed similar changes. Numerous pigmented melanocytes were present singly and in nests along the dermoepidermal junction and in some foci above it. A few melanocytes were present as high as the granular layer. Melanocytic nuclear atypia was not seen. Nests of melanocytes predominated over single cells in most areas. Nests from adjacent rete ridges tended to confluence. Underlying the area of involved epidermis was a dermal scar. The intraepidermal component of the lesion did not extend laterally beyond the dermal scar. Beneath the scar were nests of small typical nevus cells. The lesion was interpreted as a recurrent nevus (Fig. 1).

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## DISCUSSION

When a pathologist is confronted with differentiating a recurrent nevus from a malignant melanoma, histologic criteria usually suffice. However, it is important to review the original tissue to confirm the interpretation.<sup>1, 2, 11</sup>

In the recurrent nevi reported, differentiation from malignant melanoma was possible on a histologic basis. It would not be surprising if other cases occur in which differentiation from malignant melanoma will be more difficult. Because chemical removal of nevi is nearly always performed without a prior biopsy, this could produce an unresolvable dilemma.

Although the recurrent nevus phenomenon after solely chemical removal of a nevus has not been previously reported, its occurrence is not surprising. The common denominator in other circumstances of recurrent nevi is the presence of residual melanocytes and scar. These features were present in the nevi reported herein. It is believed that the junctional component in recurrent nevi arises from melanocytes at the junction of dermis and adjacent epidermis or adnexal epithelium.<sup>2</sup>

With any new therapeutic agent, experience gained from its complications should alter its usage. We recommend that Solcoderm should not be used to treat nevi unless a prior biopsy is performed. If this

guideline is followed, the usefulness of this treatment for nevi will be greatly limited.

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## Allergic contact dermatitis to cocamidopropyl betaine in shampoo

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An expert panel of the American College of Toxicology recently concluded that "cocamidopropyl betaine is safe for use in rinse-off cosmetic products at the current level of use."<sup>1</sup> (pp. 33-52) This optimistic attitude about allergenicity seems to be based on the negative results of skin sensitization studies in humans. Opposite results in animals are mentioned<sup>2</sup> but are not considered to be a serious concern. The

rare reports on allergic contact dermatitis to cocamidopropyl betaine (CB) do not seem to have been taken into consideration. Until 1990 there were two such reports of three cases.<sup>3, 4</sup> More recently, one case from the United Kingdom and four from Spain have been reported.<sup>5, 6</sup> In most cases scalp or facial skin of housewives was involved from the use of shampoos. We report four additional patients.

Table I gives the clinical and laboratory data of our four women. Two showed involvement only of the hands. Both of these were hairdressers. Another patient with involvement of the scalp only was a housewife. Patch testing was performed according to the guidelines of the International Contact Der-

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