An Unwanted Souvenir

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A young female patient presents with linear wavy erythematous plaques with hyperpigmentation. She noticed them while vacationing in Mexico.

What's your diagnosis?

This is a case of phytophotodermatitis (PPD), casually referred to as Club Med dermatitis. PPD is an inflammatory reaction of the skin due to the interaction of ultraviolet A (UVA) radiation from the sun and plant photosensitizing agents known as furocoumarins. Once activated by UVA light, furocoumarins become covalently bound to DNA, resulting in cell death. Psoralens, the type of furocoumarins most commonly implicated in PPD, are found in:

- limes,
- celery,
- lemons,
- oranges,
- figs,
- parsley,
- carrots,
- dill and
- many other plants of the Umbelliferae, Rutaceae and Moraceae families.

Chefs, gardeners, beach vacationers and grocery and agricultural workers are typical victims of PPD as a result of their frequent exposure to these plant types. Limes and celery are what specifically put vacationers at risk of PPD. It is for this reason that this condition has earned the nickname of Club Med dermatitis.

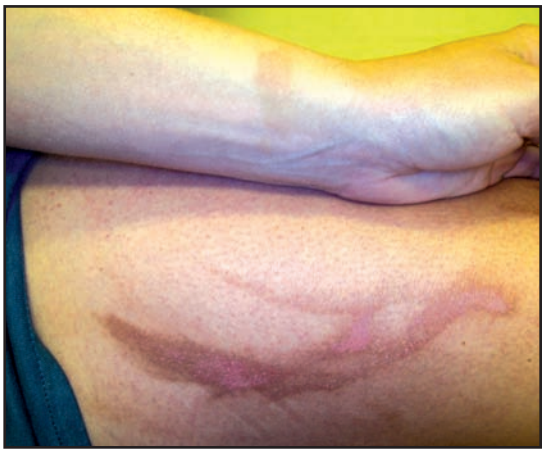

Figure 1. Streak-like lesions are very characteristic of this condition.

As medicinal agents, oral and topical psoralens are used in psoralen-UVA therapy for psoriasis. Only a few minutes of sun exposure are necessary to induce PPD. Cutaneous findings of burning erythema, vesi-culation and epidermal necrosis occur within hours to days after exposure. Subsequently, post-inflammatory hyperpigmentation develops as a result of an increased number of functional melanocytes and the falling of epidermal melanin into the dermis. In some individuals, the inflammatory reaction may be mild and unnoticeable and they present with hyperpigmentation as the only finding.

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PPD is commonly misdiagnosed as:

- atopic dermatitis,
- allergic contact dermatitis (ACD), or
- chemical burns.

Differential diagnosis further includes:

- jellyfish stings,
- porphyria and
- phototoxic drug reactions.

However, a history of contact with one of the aforementioned plants and a clinical presentation will easily yield a diagnosis of PPD.

Since PPD occurs without the help of the host's immune system, the reaction is not photoallergic and does not require previous sensitization or an intact immune system. The main symptom of PPD is pain and burning rather than pruritus, which is more characteristic of ACD. PPD lesions are classically linear or streak-like in nature, they may have bizarre shapes, resembling handprints, or may present around the mouth where the skin has come into contact with the plant.

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Since PPD is self-limiting, treatment involves avoidance of further exposure to psoralen-containing botanicals. If the lesions are harsh, blistering, or edematous, the following can be used in treatment:

- topical steroids may be used along with cold compresses and/or
- oral non-steroidal anti-inflammatory drugs.

Steroids should be discontinued after the inflammatory phase. Mild hyperpigmentation may persist in the healed area for months.

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