

## PHYTOPHOTODERMATITIS DUE TO FICUS CARICA

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### ABSTRACT

A case of phytophotodermatitis due to contact with *Ficus carica* in a 35-year-old man is reported. An erythematous vesiculo-bullous eruption occurred every summer following the contact with this plant since 25 years ago. The photostimulated open tests with the leaf and fruit were positive, whereas the patch tests were negative.

Phytophotodermatitis possibly of allergic origin caused by a contact with *Ficus carica* is relatively frequent in Southern Italy and other Mediterranean areas where this plant is largely cultivated. It seems that this condition remains often misdiagnosed.

### KEY WORDS

phytophotodermatitis, *ficus carica*, positive photopatch test.

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### INTRODUCTION

*Ficus carica* is a plant of the Moraceae family widely diffused in Southern Italy.

It is well known that *Ficus carica* can induce both irritant and allergic contact dermatitis, mainly with a photomediated mechanism (1).

### CASE REPORT

A 35-year-old man was first referred to us during July 1993 for an erythematous, vesicular and bullous eruption located at the dorsal aspect of his forearms, hands, legs and feet (fig. 1, 2). The lesions were itching and painful.



The treatment with systemic and topical steroids led to the recovery of the disease in about one week.

Anamnesis revealed that similar cutaneous lesions had occurred after contact with *Ficus carica* plants during summer time over a period of 25 years. As a rule, the cutaneous eruption spontaneously cleared in about two weeks, sometimes with slight postinflammatory hyperpigmentation.

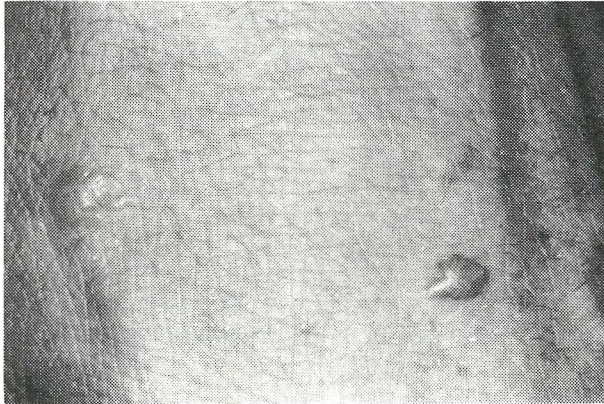


Fig. 1 Phytophotodermatitis from *Ficus carica*  
Clinical lesions

Phototests (MED-UVA, MED-UVB), patch test with the GIRDCA (Gruppo Italiano Ricerca Dermatiti da Contatto e Ambientali) standard series and open test with leaf and fruit of *Ficus carica* were negative.



Fig. 2 Phytophotodermatitis from *Ficus carica*  
Clinical lesions

Subsequently, open tests with the same materials were photostimulated with UVA (5J/cm<sup>2</sup>) plus UVB (20mJ/cm<sup>2</sup>). At

24 hours these areas showed erythematous, vesicular and bullous reactions.

Two biopsy specimens were taken, the first from a lesion on the right arm, the second from a lesion provoked by positive photostimulated open test with the fruit. Histopathologic examination of the two biopsies showed identical features. Beneath a basket wave stratum corneum

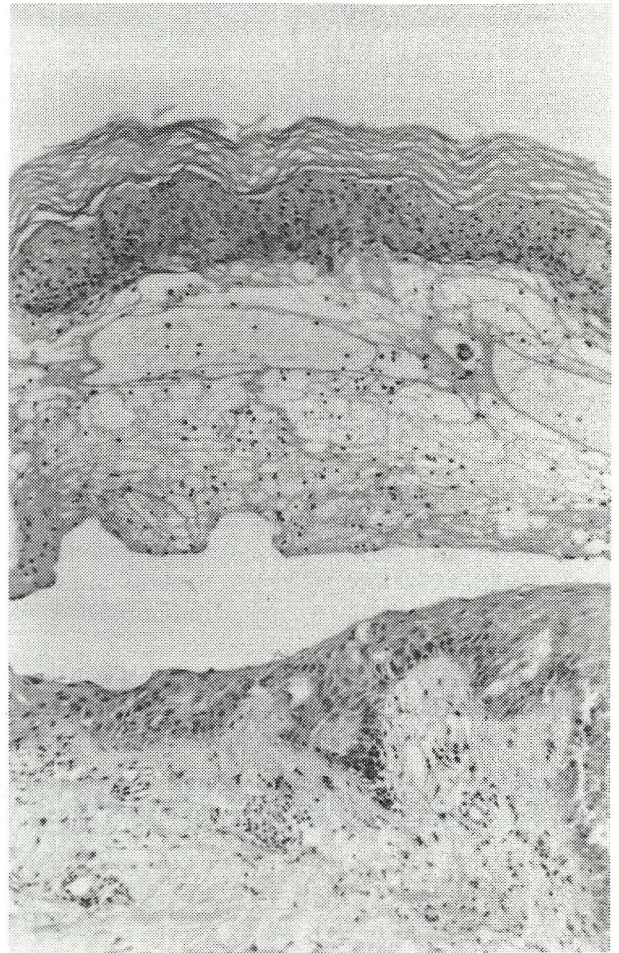


Fig 3. Histopathology: Beneath a basket-wave stratum corneum a partially necrotic epidermis can be seen. Within an intraepidermal cleavage there is fibrinous material intermingled with inflammatory cells. In the epidermis at the bottom of the cleft a slight spongiosis may be observed. In the superficial dermis a sparse mononuclear infiltrate is present.

a partially necrotic epidermis could be observed, within an intraepidermal cleavage fibrinous material intermingled with inflammatory cells was noted. In the superficial dermis a



sparse mononuclear infiltrate was present. Thus the histopathology confirmed the clinical diagnosis of photodermatitis. The allergic etiology is possible but this remains to be proved by further investigations.

## DISCUSSION

Photoallergic contact dermatitis from *Ficus carica* probably is a quite common condition in Southern Italy, due to the large cultivation of this plant (2). In spite of this, few cases have been reported (2-4).

Furocumarins, namely 5-methylpsoralen, 8-methylpsoralen, and 4'-5'-dihydropsoresalen, are the known photoactive compounds contained in the plant. On the other hand, the presence of other unidentified substances with phototoxic or photoallergic properties cannot be excluded (5).

The cases occur almost exclusively during spring and summer because of the high solar irradiation and due to the increase in the concentration of furocumarins in the plants during these seasons (3).

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