

SELF - ASSESSMENT PROGRAMME

A 50 year old male peon had presented with a 5 month history of itchy scaly papular lesions on the face, the neck, the dorsa of hands and the feet. To a lesser extent the lesions were also present on the extensors of the extremities and the trunk. Scalp was also affected with diffuse scaliness on an erythematous background. On the face the circumocular areas, the upperlip, and the undersurface of the chin were spared; the forehead showed marked lichenification. The systemic examination was unremarkable :

- A. What is the likely diagnosis ?
1. Contact dermatitis
 2. Photocontact dermatitis
 3. Actinic reticuloid
 4. Endogenous eczema
- B. Which of the following investigations would be most helpful ?
1. Patch tests
 2. Photo patch tests
 3. Intradermal tests
 4. Skin biopsies
 5. Serum IgE levels
- The patch and the photopatch tests to Parthenium hysterophorus paste were found to be positive with photopatch test being more strongly so. The skin biopsy showed a picture of chronic dermatitis. Serum IgE levels were normal.
- C. What is the likely diagnosis now ?
1. Contact dermatitis
 2. Photocontact dermatitis
 3. Combination of the two
- D. What should be the line of treatment ?
1. Avoidance of sunlight
 2. Avoidance of Parthenium
 3. Use of sunscreens
 4. All of the above
- E. What is the likely prognosis ?
1. Self limiting course
 2. Protracted illness
 3. Ultimate development of lymphoma

A. The dominant diagnosis in this patient would be of a photosensitive perhaps of a photocontact dermatitis in view of the distribution and the type of lesions. The fact that some nonlight exposed areas were also affected would tend to suggest that an element of contact dermatitis may also be present.

B. The most important investigations that are likely to help in this condition are patch and photopatch tests since they will determine whether a patient had only contact sensitivity or photocontact sensitivity or a combination of these two. Skin biopsy would not be expected to be of much help unless the clinical picture was suggestive of actinic reticuloid.

C. In view of a more strongly positive photopatch test compared to patch test, a combination of contact and photocontact sensitivity ought to be diagnosed.

D. All of the measures listed such as avoidance of sunlight, avoidance of exposure to parthenium and the use of sunscreens ought to be given. In fact, till the subsidence of acute dermatitic process, additional systemic or local corticosteroids would be helpful.

E. Patients with photocontact sensitivity to a commonly present antigen in the environment are likely to have a protracted course despite attempts at protection. The chances of developing a frank lymphoma are very remote.

Comments :

Photosensitive dermatoses in this country have clinically been suspected for a long time. Specifically contact dermatitis to parthenium hystrophorus has been reported to occur from different parts of the country^{1,2}. Some of these authors have specifically discounted the possibility of a photocontact sensitivity despite clinical suggestions. The first report of a photocontact dermatitis to *P. hystrophorus* was recently reported by us³. Since then a few more patients (unpublished) have been detected. In some of these, the initial patch tests were negative and only photopatch tests were positive. Repeating these tests has resulted in a positive response both to patch and photopatch tests. The mechanism of photocontact sensitivity transforming itself to a combination of photocontact and contact sensitivity is obscure. It is speculated that the disease starts as a photocontact sensitivity and continued exposures to light and a photoantigen enables the patient to react to the antigen even in the absence of light.

References :

1. Lonkar A, Mitchell JC and Calnan CD: Contact dermatitis from *Parthenium hystrophorus*. *Trans St. John's Hosp. Derm Soc*, 60: 43, 1974.

2. Mitchell JC, Calnan CD: Parthenium hysterophorus: Scourge of India, Int J Dermatol 717 : 303, 1978.
3. Bhutani LK and Rao DS: Photocontact dermatitis caused by parthenium hysterophorus, Dermatologica, 157 : 206, 1978.

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ADDENDUM

This is further to the 'Answer C' given in the "Self-assessment Programme" published in the Journal (45, 310, 1979). The patient in question, on follow-up, presented with a mass of hard lymph nodes in the left inguinal region which on biopsy showed a metastatic squamous cell carcinoma. Cytological examination of his urine (haematuric) showed the presence of malignant cells. Cystoscopy, IVP, and other radiological investigations have failed to detect the primary focus of malignant growth.

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