

doubt rare, yet quite a number of cases are seen in the dermatology clinic of a referral hospital like ours. Recently we had a female patient aged 40 years presenting with the classical bilateral symmetrical lesions of SWD on flanks, trunk and limbs. The lesions were present on the periphery of a diffuse erythema. The older lesions were replaced by sheets of desquamation. Patient was a known case of bronchial asthma for the last 20 years. Biochemical investigations were within normal limits. Repeated cultures from the pustules were sterile. Histopathology revealed a subcorneal bulla containing neutrophils and a few eosinophils. No definite acantholytic cells were seen. Basal layer was intact. Dermis showed few dilated blood vessels which were surrounded by neutrophils, eosinophils and few mononuclear cells.

Two important findings recorded in this case were :

(1) Crops of lesions were preceded by severe burning, pain and tenderness of the affected areas of the skin.

(2) Lesions were found over palms and soles.

Mild to moderate itching is present in most of the cases but features like burning and pain are poorly documented in the literature,¹ palms and soles are rarely involved in this disease as was seen in our case.^{2,3}

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PENTOXIPHYLLINE IN CONTACT HYPERSENSITIVITY REACTIONS

To the Editor,

Contact hypersensitivity reactions (CHR) are very common in day to day dermatological practice. Treatment is difficult and recurrence is common. Recently pentoxiphylline (PTX) has been tried for treating CHR.^{1,2}

Twenty five cases of CHR due to air borne contact dermatitis (ABCD) [*Parthenium hysterophorus*], nickel allergy, microbial ides eruption, and cement allergy were selected for the PTX trial between October 1994 to October 1995. All had short courses of systemic steroids for the past 1-2 years. Six cases of ABCD (5 males and 1 female) presented with involvement of face, neck, dorsa of hand, cubital and popliteal fossae and other exposed areas depending on the type of work. All had previous patch test with leaf extract positive. Five cases of nickel allergy (3 females and 2 males) had patch test positive and the sites of involvement were neck, wrist, dorsum of foot, suprapubic area, back and tips of fingers. Six cases of microbial ides eruption (5 males and 1 female) with lesions affecting sites of trauma, scratch or mosquito bites ie extremities, ear, scalp, leg and palms. Eight cases of cement allergy with positive patch test and all males presented either as air borne pattern, or hand and foot dermatitis affecting palm, wrist and arm, foot, dorsum of foot and lower leg. All the patients had come during the flare up of the CHR and were put on a single protocol ie, 20mg for prednisolone daily for 7 days followed by 10mg for 7 days and 10mg alternative days along with pentoxiphylline [PTX] 400mg thrice daily for 15 days. After

this protocol, all patients were maintained on the same dose of PTX for six months.

In this present trial good response was observed in 4 out of 6 cases of air borne contact dermatitis (*Parthenium hysterophorus*), 4 in 5 of nickel allergy, 4 in 6 of microbial ides eruption, and 6 in 8 cases of cement allergy. Poor response was in 2 males (ABCD), 1 female (nickel allergy), 2 males (microbial ides eruption) and 2 males (cement allergy). Poor response was directly related to discontinuation of PTX (Table I). These results indicate that PTX may be an effective alternative to steroids in controlling recurrent CHR cases.

documented nickel allergy had reduced patch test reaction while on 600mg PTX four times daily throughout the patch test reading. Studies in C3H/HeN mice sensitized to dinitrofluorobenzene showed pentoxiphylline-induced suppression of the elicitation phase of dinitrofluorobenzene-induced contact hypersensitivity. Pentoxiphylline additionally exerts profound influences on granulocyte functions similar to dapsone. It inhibits free radical generation and both basal and stimulated neutrophil adhesion to bovine endothelium probably via the down regulation of neutrophil functional antigens (eg CD 11a-c, CD 18).³

Table I. Pentoxiphylline in contact hypersensitivity reactions (CHR)

CHR	No. of cases	Good response	(%)	Poor response #
ABCD	6	4	(66.61)	2
Nickel allergy	5	4	(80)	1
Microbial ides eruption	6	4	(66.61)	2
Cement allergy	8	6	(75)	2

#Poor response was due to discontinuation of therapy.

Pentoxiphylline is a methylxanthine derivative with properties similar to theobromine, caffeine and theophylline. It has few cardiac side effects. The drug is prescribed both orally and by intravenous route. Gastrointestinal side effects can be reduced by enteric coated tablets. The drug is metabolized by red blood cells and liver with an elimination half-life of 3-4 hours.²

Immunological studies that indicate that PTX may be beneficial in CHR are : 1) PTX decreases neutrophil adherence and aggregation, 2) blocks IL-1 and TNF α thus reducing inflammation, 3) reduces platelet aggregation, 4) inhibits antigen and superantigen specific activation of T and B lymphocytes by inducing prostaglandin E2 synthesis.²

More recently^{2,3} two patients with

In vitro studies also show proven effects of PTX as an anti-inflammatory agent.^{2,4} All is superseded by the documentation of PTX being an immunomodulator by directly acting on cytokine production by hitherto unexplained mechanism. It inhibits TNF α , IL-2, IFN γ , and lymphoproliferation in a dose dependent manner. Expression of both ICAM-1 and LFA-1 α (leucocyte function antigen-1 alpha) is also reduced. These features were found to be augmented by the addition of dexamethasone in the culture which also selectively inhibited IL-6.⁵

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