

Indian Journal of Dermatology, Venereology & Leprology

CONTENTS

<p>Editor Uday Khopkar</p> <p>Associate Editors Ameet Valia Sangeeta Amladi</p> <p>EDITORIAL BOARD MEMBERS Sandipan Dhar Sanjeev Handa H. R. Jerajani Sharad Mutalik C. M. Oberai M. Ramam D. A. Satish Rajeev Sharma Shruthakirti Shenoj C. R. Srinivas D. M. Thappa S. L. Wadhwa</p> <p>Ex-officio Members A. K. Bajaj S. Sacchidanand</p> <p>EDITORIAL OFFICE Dr. Uday Khopkar Editor, IJDVL 2/7, Govt. Colony, Haji Ali, Mumbai-400034. E-mail: editor@ijdv.com</p> <p>PUBLISHED BY Medknow Publications 12, Manisha Plaza, M. N. Road, Kurla (W), Mumbai-400070, India. Phone: 91-22-25032970 Fax: 91-22-25032398 E-mail: publishing@medknow.com Website: www.medknow.com</p> <p>Manuscript submission www.journalonweb.com/ijdv</p> <p>Cover design courtesy Sudler & Hennessey</p>	<p>EDITORIAL</p> <p>PRESIDENTIAL ADDRESS</p> <p>REVIEW ARTICLE</p> <p>STUDIES</p> <p>CASE REPORTS</p>	<p>IJDVL at the crossroads</p> <p>A. K. Bajaj</p> <p>Serious cutaneous adverse drug reactions: Pathomechanisms and their implications to treatment Arun C. Inamdar, Aparna Palit</p> <p>Diltiazem vs. nifedipine in chilblains: A clinical trial A. K. Patra, A. L. Das, P. Ramadasan</p> <p>A comparative study of PUVASOL therapy in lichen planus Lata Sharma, M. K. Mishra</p> <p>Utility of polymerase chain reaction as a diagnostic tool in cutaneous tuberculosis Padmavathy L., Lakshmana Rao L., Veliath A. J.</p> <p>Therapeutic efficacy of intralesional triamcinolone acetonide versus intralesional triamcinolone acetonide plus lincomycin in the treatment of nodulocystic acne B. B. Mahajan, Geeta Garg</p> <p>Ichthyosiform sarcoidosis following chemotherapy of Hodgkin's disease M. P. S. Sawhney, Y. K. Sharma, V. Gera, S. Jetley</p> <p>Urticarial vasculitis in infancy Sukhjot Kaur, Gurvinder P. Thami</p> <p>Koebner phenomenon in PLEVA Arun C. Inamdar, Aparna Palit</p> <p>Familial acrogeria in a brother and sister Shaikh Manzoor Ahmad, Imran Majeed</p> <p>Cornelia de Lange syndrome K. Muhammed, B. Safia</p>	<p>_____ 203</p> <p>_____ 204</p> <p>_____ 205</p> <p>_____ 209</p> <p>_____ 212</p> <p>_____ 214</p> <p>_____ 217</p> <p>_____ 220</p> <p>_____ 223</p> <p>_____ 225</p> <p>_____ 227</p> <p>_____ 229</p>
---	--	---	---

Indian Journal of Dermatology, Venereology & Leprology

CONTENTS (CONTD.)

The Indian Journal of Dermatology, Venereology and Leprology is a bimonthly publication of the Indian Association of Dermatologists, Venereologists and Leprologists and published by Medknow Publications.

The Journal is indexed/listed with Health and Wellness Research Center, Health Reference Center Academic, InfoTrac One File, Expanded Academic ASAP, NIWI, INIST, Uncover, JADE (Journal Article Database), IndMed, Indian Science Abstract's and PubList.

All the rights are reserved. Apart from any fair dealing for the purposes of research or private study, or criticism or review, no part of the publication can be reproduced, stored, or transmitted, in any form or by any means, without the prior permission of the Editor, Indian Journal of Dermatology, Venereology and Leprology.

The information and opinions presented in the Journal reflect the views of the authors and not of the Indian Journal of Dermatology, Venereology and Leprology or the Editorial Board or the Indian Association of Dermatologists, Venereologists and Leprologists. Publication does not constitute endorsement by the journal.

The Indian Journal of Dermatology, Venereology and Leprology and/or its publisher cannot be held responsible for errors or for any consequences arising from the use of the information contained in this journal. The appearance of advertising or product information in the various sections in the journal does not constitute an endorsement or approval by the journal and/or its publisher of the quality or value of the said product or of claims made for it by its manufacturer.

For advertisements, please contact the Editor

	Intralesional steroid induced histological changes in the skin	
	Sukhjot Kaur, Amanjeet, Gurvinder P. Thami, Harsh Mohan	232
	Sparfloxacin induced toxic epidermal necrolysis	
	M. Ramesh, G. Parthasarathi, B. Mohan, A. B. Harugeri	235
	Fever due to levamisole	
	Ramji Gupta, Sameer Gupta	237
	Localized cutaneous sporotrichosis lasting for 10 years	
	Sanjay K. Rathi, M. Ramam, C. Rajendran	239
QUIZ	S. V. Rakesh, D. M. Thappa	241
RESIDENT'S PAGE	Sign of Nikolskiy & related signs	
	Deepa Sachdev	243
RESEARCH METHODOLOGY	Declaration of Helsinki: The ethical cornerstone of human clinical research	
	Gulrez Tyebkhan	245
MEDICOLEGAL WINDOW	Drug eruptions and drug reactions	
	Subodh P. Sirur	248
LETTERS TO EDITOR	Aggravation of preexisting dermatosis with <i>Aloe vera</i>	250
	Familial woolly hair in three generations	250
	Chronic pelvic inflammatory disease and melasma in women	251
	Comments on "Serological study for sexually transmitted diseases in patients attending STD clinics in Calcutta"	252
BOOK REVIEW	Colour atlas and synopsis of paediatric dermatology	
	Sandipan Dhar	255
ANNOUNCEMENTS		255, 256,
INSTRUCTIONS TO AUTHORS		258

Diltiazem vs. nifedipine in chilblains: A clinical trial

A. K. Patra, A. L. Das, P. Ramadasan

Department of Dermatology, STD & Leprosy, Military Hospital, Agra, India.

Address for correspondence: Lt. Col. A. K. Patra Department of Dermatology Military Hospital, Agra Cantt-282001, India.

ABSTRACT

Background: The treatment of chilblains remains unsatisfactory. Nifedipine in higher doses remains the mainstay of treatment. **Aims:** To compare the efficacy of diltiazem with that of nifedipine, and to determine the efficacy of nifedipine in lower doses, 36 chilblains cases were studied. **Material and Methods:** Group A (12 patients) was treated with diltiazem 60 mg thrice daily, and Group B (24 patients) with 10 mg nifedipine thrice daily till complete relief and then maintained on a sustained release preparation of nifedipine 20 mg twice daily. **Results:** Two patients in Group A showed complete relief in 7 days, and 3 patients in about 21 days, but in 7 cases there was little or no response. In group B, 21 cases showed 80-90% relief by the fourteenth-day. **Conclusions:** We conclude that nifedipine remains the drug of choice in chilblains but can be used in a smaller dosage in the Indian population. Diltiazem is less effective in the conventional dose, which may be optimized.

KEY WORDS: Calcium channel blockers

INTRODUCTION

Dowd et al¹ in 1986 first established the use of nifedipine in the treatment of chilblains or perniosis, in the dosage of 20 mg of sustained release preparation of nifedipine three times a day over a 6-week period. This was later confirmed by Rustin et al² in 1989 in a larger series over a prolonged period, both for treatment and for prophylaxis.

The present trial was conducted to compare the efficacy of diltiazem, a newer calcium channel blocker, with that of nifedipine, and to determine the efficacy of nifedipine in lower pharmacological dosages, since Indians are more thinly built than their Western counterparts.

MATERIAL AND METHODS

Thirty-six patients participated in this trial, which was

conducted over three winter seasons, from 1999 to 2001, in Northern and Central India. All patients were clinically diagnosed as chilblains. Their blood pressure was measured, and a routine hemogram and urinalysis performed. They were divided into two groups at random. Group A was given diltiazem 60 mg three times a day. Group B was given 10 mg of nifedipine (plain) thrice a day till complete relief and then maintained on a sustained release preparation of nifedipine 20 mg twice a day:

Some of the patients, being serving soldiers, were admitted for daily follow up and record of blood pressure, while others were advised to record their basal blood pressure wherever possible. All were advised to report in case of adverse reactions like flushing, headache or dizziness. Patients of both groups were reviewed on the 3rd, 7th, 14th and 21st days, and then once every 7th day until complete remission.

RESULTS

The clinical features of chilblains ranged from pruritus to erythema and edema to vesicles and ulceration (Table 1). The hands and feet were affected in 35 patients, and the face and ears in 1. All patients were normotensive with normal hemogram and urinalysis. Group A included 12 averagely built adults (M:F = 5:7). Response to treatment was graded into very good, good, satisfactory, minimal and no response as shown in Table 2. In 2 cases complete relief was noted within 7 days, while in 3 cases response was first observed around the 7th day and complete relief took about 21 days. However, in 7 cases there was no response after 7-10 days and they were switched over to Group B (Table 3).

Group B included 25 averagely built adults (M:F = 18:7). They were initially given nifedipine 10 mg twice a day and reviewed after 3 days for any side effects. Subsequently, nifedipine was given thrice a day. Review on the 7th day showed good clinical

response, which was sustained till about 14 days, when there was 80-90% relief in most cases. After the 14th day all patients were treated with 20 mg of a sustained release preparation of nifedipine twice a day till complete relief. The spectrum of response ranged from relief in pruritus by about the 3rd day, erythema by about the 7th day and disappearance of edema by about the 14th day. A few cases with severe edema and ulceration took another 5-7 days for complete recovery. Response was seen earlier on the hands than over the feet (Table 2).

All patients tolerated drugs well, except for one who complained of dizziness immediately after taking nifedipine. This patient was given a capsule of nifedipine under observation, but again developed dizziness and hypotension. He was then excluded from the study.

DISCUSSION

Chilblains are the result of an abnormal reaction to cold and are usually localized to acral sites. The lesions are often itchy, and usually tender, erythematous, and inflammatory, and may blister or ulcerate. Although many factors have been implicated in the etiology, varying from genetic to hormonal to increase in nerve bundles, yet one thing is constant: a persistent cold induced constriction of the large cutaneous arterioles and persistent dilatation of the smaller, more superficial vessels.¹ Histopathologically, chilblains are characterized by edema of the papillary dermis, a perivascular lymphocytic infiltrate, and thickening of the blood vessel walls with intimal proliferation leading to obliteration of vascular lumen.

They are more common in women;⁴ however in our study the M:F ratio was 23:14, probably because most of our patients were soldiers, serving at higher altitudes in extreme cold climates out in the open.

Table 1: Clinical presentation

Clinical features	No. of cases		
Pruritus			2
Erythema (1 - 3 grades)	Grade 1		30
	Grade 2		6
	Grade 3		0
Edema (1 - 3 grades)	Grade 1		20
	Grade 2		10
	Grade 3		6
Vesicle			1
Ulcer			3

Table 2: Grading the response to treatment

Very good	Complete regression of erythema, edema & ulcer
Good	Complete regression of erythema & partial regression of edema
Satisfactory	Partial regression of erythema, but no regression of edema
Minimal	No relief in erythema/edema, relief in pruritus only
Nil response	No response

Table 3: Response to treatment

Response	3rd day		7th day		14th day		21st day	
	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
Very good	-	-	2 (17%)	-	2 (17%)	21 (87%)	5 (47%)	24 (100%)
Good	-	-	-	21 (87%)	3 (25%)	3 (25%)	-	-
Satisfactory	-	-	3 (25%)	3 (12%)	-	-	-	-
Minimal	-	2 (8%)	-	-	-	-	-	-
No response	12 (100%)	22 (92%)	7 (58%)	-	-	-	-	-

The treatment of chilblains remains unsatisfactory. Nifedipine and, to a lesser extent, diltiazem,³ both calcium channel blockers, are reported to be effective. They modify calcium entry into cells by interacting with specific binding sites on the α_1 subunit of the L type voltage-dependent calcium channel. Thus while both of them cause peripheral vasodilatation, nifedipine can produce side effects like reflex tachycardia and diltiazem can slow atrio-ventricular conduction.⁵

In our study nifedipine was used in a lower dosage than the 60 mg of a sustained release preparation of nifedipine used by Rustin et al² since Indian subjects have a smaller frame/built and body weight. The clinical response was comparable to that in earlier studies of Rustin et al² and Dowd et al.³ Moreover, this regimen causes fewer side effects, has better compliance and is cheaper. In the diltiazem group, no response was seen in 7 cases, poor response in 3 cases, and good clinical response was seen only in two cases.

We conclude that nifedipine remains the drug of choice

in chilblains but can be used in a smaller dosage in the Indian population. Diltiazem is less effective in the conventional dose and we propose to conduct further studies with a higher dosage in a larger group of patients.

REFERENCES

1. Dowd PM, Rustin MHA, Lenigan S. Nifedipine in the treatment of chilblains. *Br Med J* 1986;293:923-4.
2. Rustin HA, Newton A, Smith NP, et al. The treatment of chilblains with nifedipine, the result of a pilot study, a double blind placebo controlled randomized study and a long-term open trial. *Br Med J* 1989;120:267-75.
3. Dowd PM. Reactions to cold. In: Champion RH, Burton JL, Burns DA, et al, editors. *Rook/Wilkinson/Ebling's Textbook of dermatology*. 6th ed. Oxford: Blackwell Scientific Publication; 1998. p. 957-72.
4. Ryan TJ. Cold. In: Freedberg IM, Eisen AZ, Wolff K, et al, editors. *Dermatology in general medicine*. 5th ed. New York: McGraw-Hill; 1999. p. 1495-505.
5. Williams OR. Hypertensive vascular disease. In: Braunwald E, Fauci AS, Kasper DL, et al, editors. *Harrison's principles of internal medicine*. 15th ed. New York: McGraw-Hill; 2001. p. 1414-30.