

# Indian Journal of Dermatology, Venereology & Leprology

Journal indexed with SCI-E, PubMed, and EMBASE

Vol 74 | Issue 2 | Mar-Apr 2008

C O N T E N T S

## EDITORIAL

### Management of autoimmune urticaria

Arun C. Inamadar, Aparna Palit ..... 89

## VIEW POINT

### Cosmetic dermatology versus cosmetology: A misnomer in need of urgent correction

Shyam B. Verma, Zoe D. Draelos ..... 92

## REVIEW ARTICLE

### Psoriasiform dermatoses

Virendra N. Sehgal, Sunil Dogra, Govind Srivastava, Ashok K. Aggarwal ..... 94



## ORIGINAL ARTICLES

### A study of allergen-specific IgE antibodies in Indian patients of atopic dermatitis

V. K. Somani ..... 100

### Chronic idiopathic urticaria: Comparison of clinical features with positive autologous serum skin test

George Mamatha, C. Balachandran, Prabhu Smitha ..... 105



### Autologous serum therapy in chronic urticaria: Old wine in a new bottle

A. K. Bajaj, Abir Saraswat, Amitabh Upadhyay, Rajetha Damisetty, Sandipan Dhar ..... 109

### Use of patch testing for identifying allergen causing chronic urticaria

Ashimav Deb Sharma ..... 114

### Vitiligoid lichen sclerosus: A reappraisal

Venkat Ratnam Attali, Sasi Kiran Attali ..... 118



**BRIEF REPORTS**

**Activated charcoal and baking soda to reduce odor associated with extensive blistering disorders**

Arun Chakravarthi, C. R. Srinivas, Anil C. Mathew ..... 122



**Nevus of Ota: A series of 15 cases**

Shanmuga Sekar, Maria Kuruvila, Harsha S. Pai ..... 125



**Premature ovarian failure due to cyclophosphamide: A report of four cases in dermatology practice**

Vikrant A. Saoji ..... 128

**CASE REPORTS**

**Hand, foot and mouth disease in Nagpur**

Vikrant A. Saoji ..... 133



**Non-familial multiple keratoacanthomas in a 70 year-old long-term non-progressor HIV-seropositive man**

Hemanta Kumar Kar, Sunil T. Sabhnani, R. K. Gautam, P. K. Sharma, Kalpana Solanki, Meenakshi Bhardwaj ..... 136



**Late onset isotretinoin resistant acne conglobata in a patient with acromegaly**

Kapil Jain, V. K. Jain, Kamal Aggarwal, Anu Bansal ..... 139



**Familial dyskeratotic comedones**

M. Sendhil Kumaran, Divya Appachu, Elizabeth Jayaseelan ..... 142



**Nasal NK/T cell lymphoma presenting as a lethal midline granuloma**

Vandana Mehta, C. Balachandran, Sudha Bhat, V. Geetha, Donald Fernandes .....



145

**Childhood sclerodermatomyositis with generalized morphea**

Girishkumar R. Ambade, Rachita S. Dhurat, Nitin Lade, Hemangi R. Jerajani.....



148

**Subcutaneous panniculitis-like T-cell cutaneous lymphoma**

Avninder Singh, Joginder Kumar, Sujala Kapur, V. Ramesh.....



151

**LETTERS TO EDITOR**

**Using a submersible pump to clean large areas of the body with antiseptics**

C. R. Srinivas .....



154

**Peutz-Jeghers syndrome with prominent palmoplantar pigmentation**

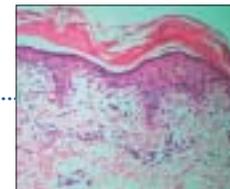
K. N. Shivaswamy, A. L. Shyamprasad, T. K. Sumathi, C. Ranganathan .....



154

**Stratum corneum findings as clues to histological diagnosis of pityriasis lichenoides chronica**

Rajiv Joshi .....



156

**Author's reply**

S. Pradeep Nair .....

157

**Omalizumab in severe chronic urticaria**

K. V. Godse.....

157

**Hypothesis: The potential utility of topical eflornithine against cutaneous leishmaniasis**

M. R. Namazi .....

158

**Nodular melanoma in a skin graft site scar**

A. Gnaneshwar Rao, Kamal K. Jhamnani, Chandana Konda .....



159

**Palatal involvement in lepromatous leprosy**

A. Gnaneshwar Rao, Chandana Konda, Kamal Jhamnani.....



161

**Unilateral nevoid telangiectasia with no estrogen and progesterone receptors in a pediatric patient**

F. Sule Afsar, Ragip Ortac, Gulden Diniz.....



163

**Eruptive lichen planus in a child with celiac disease**

Dipankar De, Amrinder J. Kanwar.....



164

**Xerosis and pityriasis alba-like changes associated with zonisamide**

Feroze Kaliyadan, Jayasree Manoj, S. Venkitakrishnan.....

165

**Treatment of actinomycetoma with combination of rifampicin and co-trimoxazole**

Rajiv Joshi.....



166

**Author's reply**

M. Ramam, Radhakrishna Bhat, Taru Garg, Vinod K. Sharma, R. Ray, M. K. Singh, U. Banerjee, C. Rajendran.....

168

**Vitiligo, psoriasis and imiquimod: Fitting all into the same pathway**

Bell Raj Eapen.....

169

**Author's reply**

Engin Şenel, Deniz Seçkin.....

169

**Multiple dermatofibromas on face treated with carbon dioxide laser: The importance of laser parameters**

Kabir Sardana, Vijay K. Garg.....

170

**Author's reply**

D. S. Krupa Shankar, A. Kushalappa, K. S. Uma, Anjay A. Pai.....

170

**Alopecia areata progressing to totalis/universalis in non-insulin dependent diabetes mellitus (type II): Failure of dexamethasone-cyclophosphamide pulse therapy**

Virendra N. Sehgal, Sambit N. Bhattacharya, Sonal Sharma, Govind Srivastava, Ashok K. Aggarwal.....



171

**Subungual exostosis**

Kamal Aggarwal, Sanjeev Gupta, Vijay Kumar Jain, Amit Mital, Sunita Gupta.....

173

**Clinicohistopathological correlation of leprosy**

Amrish N. Pandya, Hemali J. Tailor ..... 174

**RESIDENT'S PAGE**

**Dermatographism**

Dipti Bhute, Bhavana Doshi, Sushil Pande, Sunanda Mahajan, Vidya Kharkar ..... 177

**FOCUS**

**Mycophenolate mofetil**

Amar Surjushe, D. G. Saple ..... 180

**QUIZ**

**Multiple papules on the vulva**

G. Raghu Rama Rao, R. Radha Rani, A. Amareswar, P. V. Krishnam  
Raju, P. Raja Kumari, Y. Hari Kishan Kumar ..... 185



**E-IDVL**

**Net Study**

**Oral isotretinoin is as effective as a combination of oral isotretinoin and topical anti-acne agents in nodulocystic acne**

Rajeev Dhir, Neetu P. Gehi, Reetu Agarwal, Yuvraj E. More ..... 187

**Net Case**

**Cutaneous diphtheria masquerading as a sexually transmitted disease**

T. P. Vetrichevvel, Gajanan A. Pise, Kishan Kumar Agrawal,  
Devinder Mohan Thappa ..... 187



**Net Letters**

**Patch test in Behcet's disease**

Ülker Gül, Müzeyyen Gönül, Seray Külcü Çakmak, Arzu Kılıç ..... 187

**Cerebriform elephantiasis of the vulva following tuberculous lymphadenitis**

Surajit Nayak, Basanti Acharjya, Basanti Devi, Satyadarshi Pattnaik,  
Manoj Kumar Patra ..... 188



**Net Quiz**

**Vesicles on the tongue**

Saurabh Agarwal, Krishna Gopal, Binay Kumar ..... 188



## Hand, foot and mouth disease in Nagpur

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### ABSTRACT

Hand, foot and mouth disease (HFMD) is a viral infection of children caused by *Coxsackie virus-A16*, a type of enterovirus closely related with the virus that causes herpangina. Although seen worldwide, it is not common in India. Hand, foot and mouth disease is sporadically reported from India as a mild illness. This report describes four cases of HFMD from Nagpur, Central India, seen between September 2005 and April 2006. All patients presented with a mild febrile prodrome followed by the appearance of aphthous-like oral ulcers and vesicular lesions on the hands and feet. All cases were clinically diagnosed. Coxsackie virus A16 was isolated from the serum of one of the patients. All the patients were in the age group of 3-5 years from different schools. It was a mild illness and all the four patients recovered without any complication. There were no secondary cases in the families.

**Key Words:** Central India, Hand foot and mouth disease, Nagpur

### INTRODUCTION

Hand, Foot and Mouth Disease (HFMD) is a viral infection seen worldwide. Which mostly affects children below ten years of age. It is usually caused by Coxsackie A16, an enterovirus, closely related with the virus that causes herpangina. Enteroviruses include *polio virus*, *coxsackie virus types A and B* and *ECHO viruses*. HFMD may occur in an epidemic or sporadic form. HFMD epidemics are usually due to *coxsackie type A16* and sporadic cases are due to types A5 and A10.<sup>[1]</sup> Incubation period ranges from 5 to 7 days. Illness begins with a mild fever of short duration followed by oral and skin lesions. Oral lesions appear as vesicles, which rapidly ulcerate producing multiple small superficial ulcers with erythematous halos. The ulcers resemble aphthous ulcers and are usually seen on the tongue, palate, buccal mucosa, gums and lips. Oral ulcers cause discomfort, making oral feeding difficult. This enanthem is followed by skin lesions. Skin lesions are vesicles on erythematous bases similar to lesions of varicella but are more elongated and oval. The lesions are present prominently on the hands and feet. Sometimes, the exanthem is more widespread

involving the buttocks, knees and elbows.<sup>[1]</sup> Lesions usually subside in 5-7 days. HFMD is usually a mild illness but sometimes meningitis, encephalitis and polio-like paralysis may occur. Diagnosis of HFMD is usually made based on clinical characteristics but can be confirmed by viral isolation from stool, vesicular fluid or blood. Serological tests are also available. Many deaths have been reported due to severe outbreaks of HFMD from many Asian countries.<sup>[2-4]</sup> It is not commonly seen in India; only a few reports are available. This report describes four cases of HFMD seen in Nagpur, Central India.

### CASE REPORTS

Four cases, two male and two female ranging in age from 3 to 5 years are presented in Table 1. The first case was seen in September 2005 and the last case in April 2006 [Figures 1-3]. All were nursery students, studying in different schools and staying in different localities of Nagpur. All the patients were from educated, middle-class families. A mild prodrome of 1-2 days was followed by the appearance of oral lesions. Aphthous-like oral ulcers

**How to cite this article:** Saoji VA. Hand, foot and mouth disease in Nagpur. Indian J Dermatol Venereol Leprol 2008;74:133-5.

**Received:** October, 2006. **Accepted:** March, 2007. **Source of Support:** Nil. **Conflict of Interest:** Nil.

**Table 1: Clinical presentation of patients of hand, foot and mouth disease**

No.	Age (years)/ sex	Prodrome	Oral lesions	Skin lesions	Course of the disease
1	3/F	Mild	Multiple ulcers on lips, buccal mucosa	Vesicles on erythematous base on hands and feet	Within one week, lesions dried without any complication.
2	4/M	Mild	Multiple ulcers on lips, buccal mucosa and palate	Vesicles on erythematous base on hands, feet and a few lesions on both knees and buttocks	Within one week, lesions dried without any complication.
3	4/M	Mild	Multiple aphthous-like ulcers on lower lip, buccal mucosa, palate and tongue	Vesicles on erythematous base on hands and feet, a few lesions on both knees and buttocks	By 8 <sup>th</sup> day, all the lesions healed, without any complication.
4	4/F	Mild	A few superficial ulcers on lips and palate	A few vesicular lesions on erythematous base on palms and soles	Lesions healed in one week without any complication.

F-female; M-male



**Figure 1: Oral ulcers in patient no. 2**



**Figure 3: Skin lesions on buttocks in patient no. 3**



**Figure 2: Cutaneous lesions on the feet in patient no. 3**

were present on the lips, buccal mucosa and palate and led to feeding difficulty. Skin lesions appeared a further 1-2 days later and were seen as oval or circular vesicles on erythematous bases. In all these cases, the diagnosis of HFMD was made on clinical grounds because of the characteristic clinical presentation of oral ulcers and vesicular lesions on

the hands and feet. In all the four patients, it was a mild illness with healing of the lesions in 7-8 days without any complication. The patients were treated symptomatically with antihistaminics and calamine lotion. There were no secondary cases in the families of these patients. Coxsackie A16 was detected using RT-PCR from the serum sample of one of the patients (Case 4).

## DISCUSSION

In all our four cases, diagnosis of HFMD was clinical and based on the typical presentation of oral ulcers and lesions on the hands and feet. However, we could demonstrate coxsackie A16 virus in the serum in one case. These cases could represent a small outbreak in our city. Due to the mild nature of the illness and the lack of awareness amongst doctors, it is possible that some of the cases could have been overlooked. Due to prominent skin manifestations of HFMD, patients may first consult a dermatologist. Oral lesions of HFMD can be easily misdiagnosed as aphthous ulcers or the exanthem can be misdiagnosed as varicella.

However, varicella rarely presents with oral lesions and the skin lesions are more concentrated on the trunk, only rarely affecting the palms and soles. Herpangina is a viral infection of children caused by a type A *coxsackie virus* which presents with similar types of oral ulcers but are more extensive involving the tonsils, pharyngeal mucosa, soft palate and the posterior part of buccal mucosa.<sup>[1]</sup> Unlike HFMD, there are no skin lesions in herpangina.

Enteroviruses multiply in the gastrointestinal tract and are transmitted by the feco-oral route. Good hygienic practices are the most important preventive strategies. As virological studies are not easily available in developing countries like India, the diagnosis of HFMD is often made on clinical grounds alone. HFMD is commonly caused by *coxsackie virus* A16 and *Enterovirus* 71 but is also reported with *coxsackie virus* A5, A7, A9, A10, B2, B3 and B5.<sup>[5]</sup> HFMD caused by *Coxsackie virus* A16 (CV-A16) is usually a mild disease and the patient recovers in 5-7 days without any complication.<sup>[2]</sup> Rarely is HFMD severe, leading to meningitis, encephalitis, poliomyelitis-like paralysis and even death.<sup>[2]</sup> Many deaths occurred due to a severe outbreak of HFMD due to *Enterovirus* 71 (EV71) in Malaysia,<sup>[2]</sup> Taiwan<sup>[3]</sup> and Singapore.<sup>[4]</sup> Although major outbreaks have been reported from Asian countries, not many cases are reported from India. Sasidharan *et al.* reported 81 cases of HFMD from Calicut, seen between October 2003 and February 2004.<sup>[6]</sup> Although this outbreak was caused by EV71, it was a mild illness without any complication or mortality. Coxsackie virus A16 was isolated from one of our patients which indicates that the present outbreak in Nagpur is not related with the outbreak reported from Kerala (due to EV71) and there may be different serotypes prevalent in the country. There are various subtypes of EV71 and only some of the subtypes such as B4 and C2 are associated with severe disease, whereas subtype B3 is associated with mild disease.<sup>[2]</sup> Genetic recombination is known to occur between various subtypes producing new subtypes with differing pathogenic potentials.<sup>[2]</sup>

There is no normal enteric virus flora. Usually only one type of enterovirus multiplies within the intestine of an individual at any given time. Polio vaccination has eliminated polio viruses from the gut, thereby increasing the chances of

coxsackie viral and echoviral infections.<sup>[7]</sup> It is possible that the emergence of HFMD in India may be related to the mass polio vaccination. However, a firm conclusion can be made in this regard only after studying a large number of cases of HFMD over a period of time. Moreover, in today's aviation era, it is very easy for organisms to be transferred from one part to another part of our country, spreading the disease. A small outbreak of HFMD can become a major epidemic and because of genetic recombination of viruses, a benign illness can become a deadly disease as has happened in many Asian countries. It is important for dermatologists to be aware of this disease as they may be the first health care professional to be consulted in such cases.

## ACKNOWLEDGMENT

The author wishes to thank Dr. Satish Deopujari and Dr. Vikram Rajan for referring the cases and also to Rota-Enterovirus group, National Institute of Virology, Pune for carrying out virological studies in our patients.

## REFERENCES

1. Sterling JC. Virus infections. *In*: Burns T, Breathnach S, Cox N, Griffiths C, editors. *Rook's textbook of dermatology*. 7<sup>th</sup> ed. Oxford: Blackwell Science; 2004. p. 25.1-83.
2. Chan YF, AbuBakar S. Recombinant human enterovirus 71 in hand foot and mouth disease patients. *Emerg Infect Dis* 2004;10:1468-70.
3. Chang LY, King CC, Hsu KH, Ning HC, Tsao KC, Li CC, *et al.* Risk factors of enterovirus 71 infection and associated hand foot and mouth disease/herpangina in children during epidemic in Taiwan. *Pediatrics* 2002;109:e88.
4. Shah VA, Chong CY, Chan KP, Ng W, Ling AF. Clinical characteristic of an outbreak of hand foot and mouth disease in Singapore. *Ann Acad Med Singapore* 2003;32:381-7.
5. Frieden IJ. Viral exanthems. *In*: Aly R, Maibach HI, editors. *Atlas of infections of the skin*. Churchill Livingstone: 1999. p. 231-43.
6. Sasidharan CK, Sugathan P, Agrawal R, Khare S, Lal S, Paniker J. Hand-foot-and-mouth disease in Calicut. *Indian J Pediatr* 2005;72:17-21.
7. Martin LA. Enteric viruses. *In*: Petersdorf RG, Adams RD, Braunwald E, Isselbacher KJ, Martin JB, Wilson JD, editors. *Harrison's principles of internal medicines*. 10<sup>th</sup> ed. McGraw-Hill International Book Company; 1983. p. 1125-32.