

**Hand-Foot-Mouth Disease in an Immunocompetent Adult- An Atypical Case**

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**Conflicts of Interest:** Nil

**Abstract**

We herein report a case of Hand-Foot-Mouth disease in an immunocompetent adult. The case was atypical and contrary to the regular epidemiological pattern. The features of the case, the diagnosis of the disease and its subsequent successful treatment are discussed. The case report ends with a discussion about the need for vigilance and preparedness in tackling what may prove to be the vanguard of a changing trend.

**Keywords:** vigilance, preparedness, HFMD

**Introduction**

Hand, foot, and mouth disease (HFMD) is a common enteroviral infectious disease caused mainly by Coxsackie A16 and enterovirus 711[1]. Robinson and co-workers first reported it in Canada in 1957[2]. It occurs as an endemic or epidemic disease in North America [3] and Europe [4] but is increasingly prevalent

in South-East Asia [5], including India. It is characterised by skin rash and oral lesions accompanied by flu-like symptoms. It mainly affects infants [6] but may be seen in immunocompromised adults [7]. Atypical cases have also been reported in immunocompetent adults [8].

In India, it was first reported in Calicut around 2003[9]. Four years later, a large-scale outbreak was reported in West Bengal [10].

The severity of the infection is determined by several factors such as virological, host and environmental factors.

**Case Presentation**

A thirty-two-year-old man came to the dental clinic for treatment. He complained of severe sore mouth and throat.

He also reported malaise and abdominal discomfort. He reported no harmful habits. He was immunocompetent. Upon examination, he was found to have a fever of 39°C. Crusted red-ringed blisters and ulcers were evident on the tongue, hand, and foot. An itching rash was present on the palms of the hands and the soles of the feet. Lymph nodes were swollen.



Figure 1



Figure 2



Figure 3

### Diagnosis

Based on clinical examination and lab reports, he was diagnosed with hand-foot-mouth disease.

### Differential Diagnosis

Herpetic gingivostomatitis, herpangina, erythema multiforme, recurrent aphthous ulcers, and animal foot-and-mouth disease as possible differential diagnoses

### Treatment

Since the infection is usually self-limiting and subsides within 7-14 days, treatment was mainly supportive.

Patient was prescribed

- Taxim-O 200 twice per day before meals for 5 days
- Acivir DT 400 twice per day before meals for 5 days
- Fluconazole 150 for 10 days
- P650 twice per day for 5 days
- Pantoprazole once per day before meals for 10 days.
- Complevit Gold capsules once per day for 30 days.

The patient was asked to complete the regimen and report for a follow-up after 30 days.

### Follow-up

After treatment, the patient showed substantial improvement. During the recall after one month, Blisters were treated on the mouth, hand and foot. Intraoral lesions were healed.



Figure 4

### Discussion

Hand Foot Mouth Disease has traditionally been considered a disease of infants and endemic in North America. The manifestation of this disease in an adult in West Bengal state of India is certainly an arresting incident. This could be the vanguard of a growing trend. Given that oral symptoms are common, dental professionals must be sufficiently familiar with the clinical manifestations of HFMD to ensure early diagnosis and treatment, which in turn determines the prognosis and course of the disease.

The disease is self-limiting in nature. Treatment is mainly symptomatic and carried out under the following principles. Standard dosages of antipyretics agents like Acetaminophen, ibuprofen for fever and analgesia. Lidocaine or benzocaine is applied with a cotton swab to specific areas to avoid toxicity. Betadine mouth rinse may be advised to combat secondary infection. B-complex & Electrolyte Zinc supplements improve nutrition and recovery.

We hope this early report will help strategic planning for better management of the disease and prevention of dreaded complications not just in West Bengal but globally.

### References

1. Knipe DM, Howley PM, Griffin DE, Lamb RA, Martin MA, Roizman B, Straus SE. *Fields Virology*, Volumes 1 and 2.
2. Robinson CR, Doane FW, Rhodes AJ. Report of an outbreak of febrile illness with pharyngeal lesions and exanthem: Toronto, summer 1957—isolation of group A coxsackie virus. *Canadian Medical Association Journal*. 1958 Oct 15;79(8):615.
3. Centers for Disease Control and Prevention (CDC). Notes from the field: severe hand, foot, and mouth disease associated with coxsackievirus A6—Alabama, Connecticut, California, and Nevada, November 2011–February 2012. *MMWR. Morbidity and mortality weekly report*. 2012 Mar 30;61(12):213-4.
4. Blomqvist S, Klemola P, Kaijalainen S, Paananen A, Simonen ML, Vuorinen T, Roivainen M. Co-circulation of coxsackieviruses A6 and A10 in hand, foot and mouth disease outbreak in Finland. *Journal of clinical virology*. 2010 May 1;48(1):49-54.
5. Wang JF, Guo YS, Christakos G, Yang WZ, Liao YL, Li ZJ, Li XZ, Lai SJ, Chen HY. Hand, foot and mouth disease: spatiotemporal transmission and climate. *International journal of health geographics*. 2011 Dec;10(1):1-0.
6. Zhang X, Yan HP, Huang C, Tan YF, Ma DM, Zhang HP, Liu Y, Wang SZ. The etiology and clinical manifestations of 70 patients with hand-foot-mouth disease. *Zhonghua yu Fang yi xue za zhi [Chinese Journal of Preventive Medicine]*. 2009 Oct 1;43(10):872-4.
7. Faulkner CF, Godbolt AM, DeAmbrosio B, Triscott J. Hand, foot and mouth disease in an immunocompromised adult treated with aciclovir. *Australasian journal of dermatology*. 2003 Aug;44(3):203-6.

8. Shin JU, Oh SH, Lee JH. A case of hand-foot-mouth disease in an immunocompetent adult. *Annals of dermatology*. 2010 May 1;22(2):216-8.
9. Sasidharan CK, Sugathan P, Agarwal R, Khare S, Lal S, Jayaram Paniker CK. Hand-foot-and-mouth disease in Calicut. *The Indian Journal of Pediatrics*. 2005 Jan;72(1):17-21.
10. Sarma N, Sarkar A, Mukherjee A, Ghosh A, Dhar S, Malakar R. Epidemic of hand, foot and mouth disease in West Bengal, India in August, 2007: a multicentric study. *Indian journal of dermatology*. 2009 Jan;54(1):26.