CASE REPORT
Year: 2019 • Volume: 2 • Issue: 1 • Page: 19-21

HAND, FOOT AND MOUTH DISEASE IN AN IMMUNOCOMPETENT ADULT- A RARITY

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Abstract

Hand, foot and mouth disease (HFMD) is a highly contagious viral infection in childhood or immunocompromised adults manifesting with low-grade fever along with vesicles or papules over oral mucosa, palms, dorsa of feet and buttocks. A 24-year old male presented with complains of fever since 3 days followed by lesions in mouth and over palms and soles for 2 days with history of malaise and throat pain. On examination there were multiple, discrete, ill-defined erythematous maculopapular rash present over palms, dorsa of feet and soft palate. Routine investigations were within normal limits along with seronegativity for HIV and syphilis. Symptomatic treatment resulted in resolving of lesions. HFMD is predominantly a childhood or immunodeficiency-associated disease spreading through feco-oral, oro-oral and fluids of the vesicles. Our case was a male in his mid twenties, suggesting that it can occur in immunocompetent adult also without any history of close contact.

Key words: Hand, foot and mouth disease, immunocompetent adult, viral infection

Introduction

Hand, foot and mouth disease (HFMD) is a highly contagious viral infection in childhood or immunocompromised adults. HFMD was clinically defined as any patient with an acute onset of vesicular eruptions on the hands and feet in association with oral sores.[1] Coxsackievirus A16 and enterovirus 71 being the most common cause of HFMD[2], CVA6 has also been identified in adult patients.[3-5] Here we report a case of an immunocompetent male with vesicular eruption and oral manifestations diagnosed as having HFMD

Case Report

A 24 year old male presented to skin opd in monsoon season with complains of fever since 3 days followed by lesions in mouth,palms and dorsa of feet for 2 days with history of malaise and throat pain. No history of herpes simplex infection, history of drug intake within the preceding 2 weeks (prior to the onset of skin lesions) were noted and no history of close contact with any infected child or adult was given. On examination there were multiple, discrete, ill-defined erythematous maculopapular lesions present over palms, dorsa of feet and soft palate. (Fig 1,2,3) Multiple clear fluid filled vesicles over bilateral ears (fig 4), multiple pustular lesions with crusting over buttocks. The results of hematological investigations were normal along with seronegativity for HIV and syphilis and Tzanck smears showed nonspecific inflammatory cells. Laboratory confirmationby electron microscopy of the pathogen causing the disease was not done due to resource constraints.Symptomatic treatment resulted in resolving of lesions.

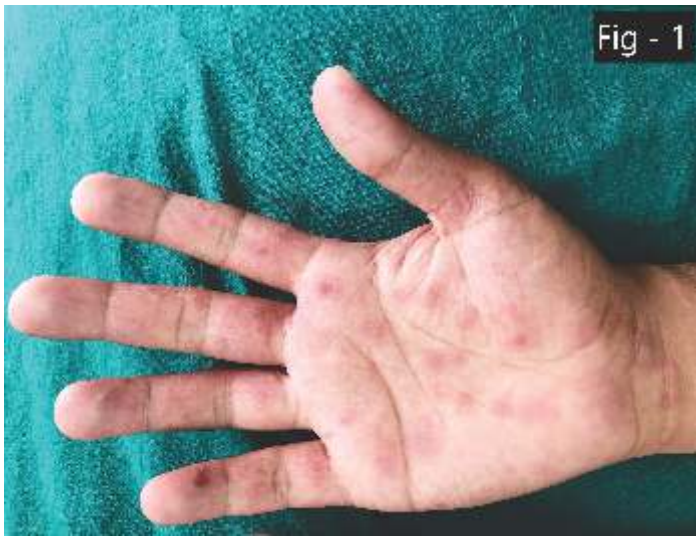

Figure 1 : multiple, discrete, ill-defined erythematous macule and papules present over palms.

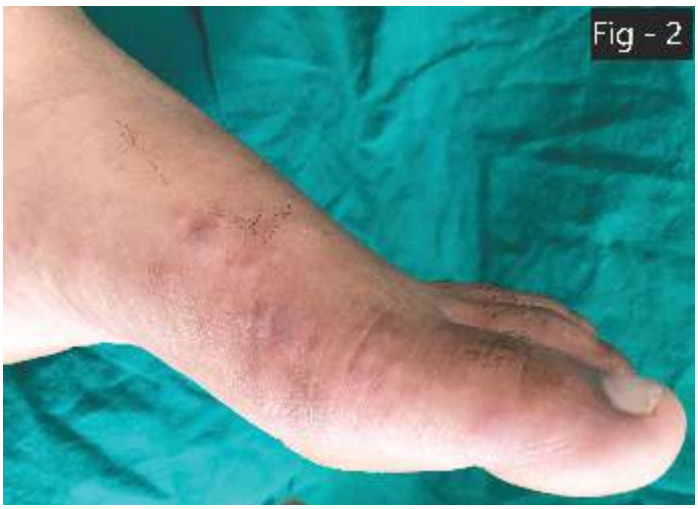

Figure 2 : multiple, discrete, ill-defined erythematous macule and papules present over dorsa of feet.

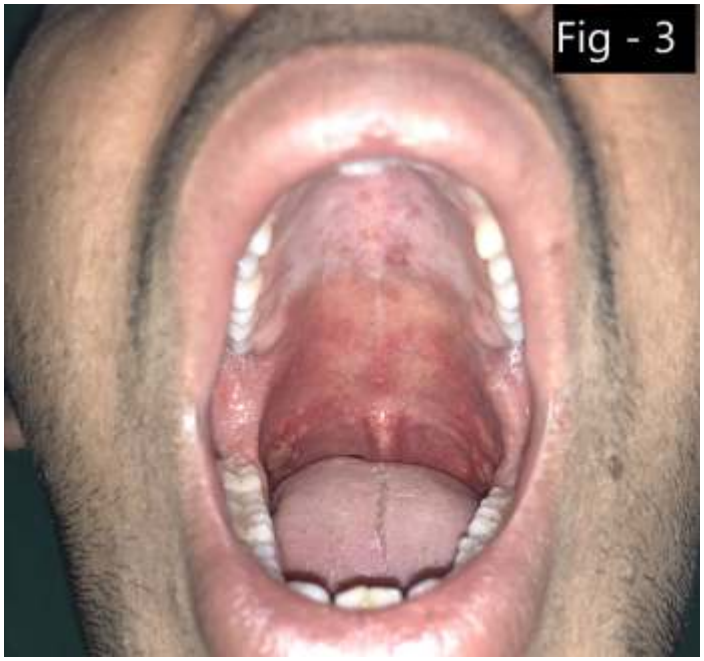

Figure 3 : multiple, discrete, ill-defined erythematous macule and papules present soft palate

Discussion

HFMD was clinically defined as any patient with an acute onset of vesicular eruptions on the hands and feet in association with oral sores.[1] HFMD predominantly occurs in children less than 10 years of age [6] and in immunocompromised adults, but can rarely be seen in immunocompetent adults. Coxsackie has been considered the most common cause of HFMD but traces of A5,A10 and not uncommonly human enterovirus 71 have been found.[2]Most cases are in young children during the autumn months, but outbreaks have occurred in communities of adults. Certain reports have shown that 25% adults were affected in several outbreaks in western countries between 2011 and 2012.[4] The disease is usually mild with an incubation period of 5-7 days, and lasting for about 7 days. In children it can be asymptomatic but in adults it can present with painful stomatitis. Fever accompanies the lesions. Skin lesions are mainly small vesicles upto 5mm in diameter, thin walled, pearly grey, most commonly over hands. Lesions heal spontaneously in 2 weeks without scarring. Atypical HFMD presents with more variable and severe manifestation such as diffuse rash, purpuric lesions and adult-age predilection.[7,8]A clinical diagnosis usually suffice the proof for HFMD but if histology is performed it usually shows spongiosis, intraepidermal splits progressing to vesicle formation, mononuclear cells entering the epidermis, and necrosis of individual keratinocytes. Laboratory tests include microneutralization test, reverse Transcriptase – Polymerase Chain Reaction, culture method, neutralizing antibody detection, and enzyme-linked immunosorbent assay.[9,10] Though HFMD is a self-limiting disease there should be surveillance maintenance as there is no effective chemoprophylaxis or vaccine available. Treatment is symptomatic. Maintenance of personal hygiene, social distancing and disinfection of the environment are probably the most effective measures to avoid spreading of the disease to the community. To our knowledge, only a few HFMD cases have been described in the literature in immunocompetent adults.[9,11,12]Public health personnel should be enabled proper epidemiological knowledge of HFMD to predict outbreaks of the disease and implement effective interventions so as to reduce the burden of disease in the society.

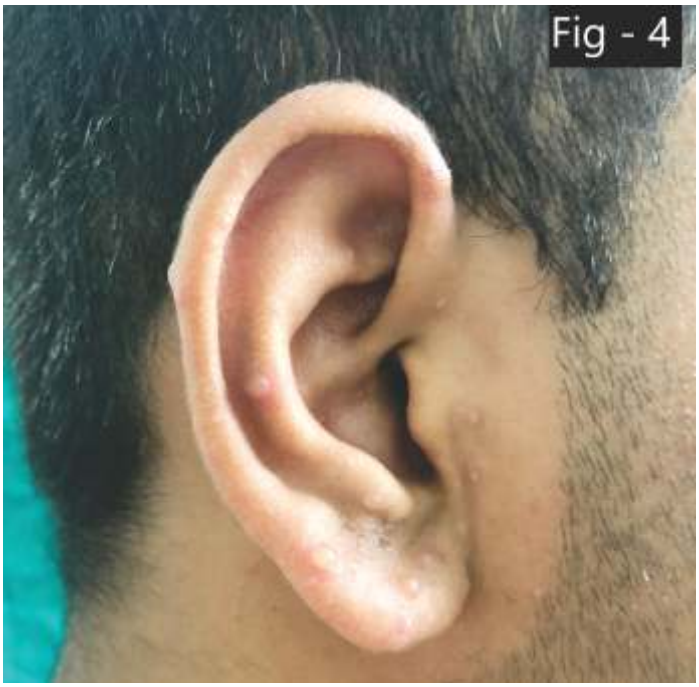

Figure 4 : Multiple clear fluid filled vesicles over bilateral ears

Conclusion

The current scenario states that the diagnosis of HFMD should be kept in mind whenever a patient presents with vesicles or maculopapular rash over palms, soles and oral mucosa to prevent its spread and complications, as it can rarely affect immunocompetent adults also.

How to cite this article:
Modasia K, Shah A, Patel T, Tandel J, Vora R. Hand, foot and mouth disease in an immunocompetent adult- Ararity. JDA Indian Journal of Clinical Dermatology 2019;2:19-21.

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