Original Article

Hand, Foot and Mouth Disease

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Introduction

Hand, foot and mouth disease (HFMD) is a common illness of infants and children caused by Coxsackie viruses. It occurs in children less than 10 years, commonly less than 4 years. It is common to have outbreaks in summer. Clinical examination of children reveals vesiculopustular lesions over the throat, tonsils, hands(especially palms), feet(especially sole), and buttocks.

What Made Us Suspect Hand Foot Mouth Disease

In Paediatric OPD mothers of children complained of maculopapular rashes over the the hands,feet and buttocks with the history of mild fever and pruritis.On examination they were found to have vesiculopustular lesions over the body (commonly in soles,palms,oral cavity and buttocks). These lesions made us think of hand foot mouth disease. For example:

1 yr old child came with complaints of

- rashes all over the body-2 days
- excessive cry-1 day
- Decreased appetite-1 day
- Uneasiness-1 day

Parents noticed that the child had macular lesions over the body 48 hrs ago which turned to papular/vesicular lesions 24hrs ago before coming to the opd.They had also seen 30-40 lesions in buttocks .On examination the child was found to have vesiculopustular lesion over the buttocks, knee (Fig 1&2), forearm, tongue and palate .With such typical history and clinical presentation we made a diagnosis of hand foot mouth disease and the patient was treated symptomatically. We saw about 20 similar cases during the period of Aug 2012-Mar 2013.

Data analysis:

Table -1 Age group:

Age	no.of cases	percentage
<1 year	4	20
1-3 years	12	60
3-6 years	0	0
6-12 years	4	20
>12 years	0	0

Table-2 Clinical manifestation:

Symptoms/signs	no.of cases	percentage
Fever(low grade)	14	70
Malaise/tiredness	10	50
Irritability/frequent cry	6	30
Decreased appetite	14	70
Eruptions	20	100
Cough/cold	4	20
Loose stools	2	10
Itching	12	60

Investigations: 1.Complete Blood Count 2.Xray chest
Diagnosis Is Primarily Clinical.Virus isolation was not done since it is costly and not available at regional centres.

Treatment:

- Reassurance
- Prevention of transmission
- Fluid intake
- Antipyretics
- School exclusion-until symptoms resolve, blisters dry

Discussion

The most common causes of Hand, Foot and Mouth disease(HFMD) are coxsackie virus A16 and enterovirus 71 (EV71) which belong to picornaviridae family[1]. Outbreaks of HFMD occur worldwide, more frequently in summer and early autumn.But we have seen cases in winter season.

Incubation period is about 3-5 days and the infectivity is 7 days from the incubation period.It mainly spreads via faeco oral route[2].Other modes of transmission are by direct contact of secretions [nasopharyngeal(droplet) spread] or fluid in blisters and by means of vertical spread.

In our cases vesicles were present mostly in the buttock area compared to the limbs,whereas literature says the most common area affected is soles and palms[3].All cases recovered completely within 10 days.

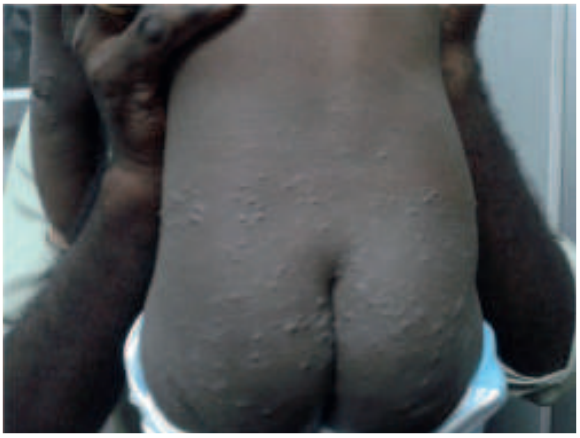

Fig1: Vesiculopapular lesions in the gluteal region

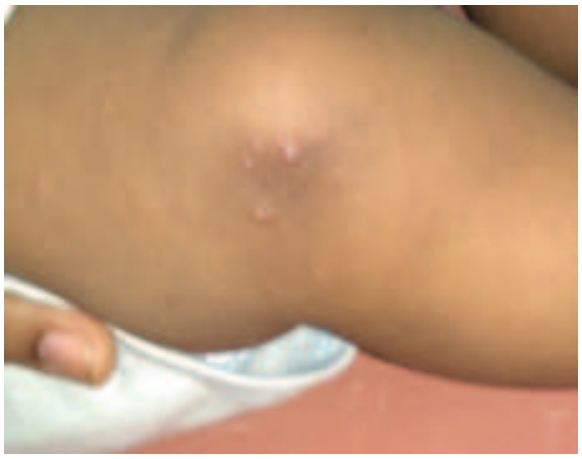

Fig2: Vesiculopapular lesions in the Knee

Diagnosis is primarily clinical[4]. The organisms can be isolated from NPA(nasopahryngeal aspirate) or throat swab for EV PCR,Other fluids (vesicle, CSF) for EV PCR,Stool for EV isolation/ culture,but it may take weeks to permit the characterisation of viruses.In various outbreaks worldwide CA16 and EV71 viruses were identified as the causative agent for this outbreak[1,5-9].

Differential diagnosis includes herpangina(limited to posterior oral cavity with no skin lesion),herpes simplex &herpes zoster virus,chicken pox,viral pharyngitis, scabies.

Coxsackie virus A16 infection is a mild disease and patients will recover within 7 to 10 days. Enterovirus EV71 leads to neurological complications such as aseptic meningitis, encephalitis,acute flaccid paralysis,fatal neurogenic pulmonary oedema, dehydration, secondary bacterial infection[9].

In one of our cases,the child developed bronchopneumonia due to secondary bacterial infection which resolved with treatment. Another case had severe pruritis even after the vesicles got resolved and was treated symptomatically.

Prevention is mainly by staying away from crowded places such as shopping centres when we are unwell and following good hygienic practices such as frequent hand washing to limit the spread of the disease.

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