Medicine for Managers

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Hand, Foot and Mouth Disease

Hand, foot and mouth disease, *which is unrelated to the livestock disease Foot and Mouth*, is a usually mild viral illness affecting young children, often reaching epidemic proportions in institutions such as schools and crèches. It usually starts off with cold-like symptoms before the development of shallow vesicles (blisters) and subsequently ulcers on the hands, feet and mouth.

The incubation period for the infection is up to five days and the affected child develops 'viral symptoms' of raised temperature, loss of appetite, lethargy and sometimes a dry cough and sore throat.

About twenty-four to forty-eight hours after the initial symptoms start, the child will develop spots inside and around the mouth, particularly on the gums and cheeks and they develop into vesicles which then break down to form shallow ulcers.

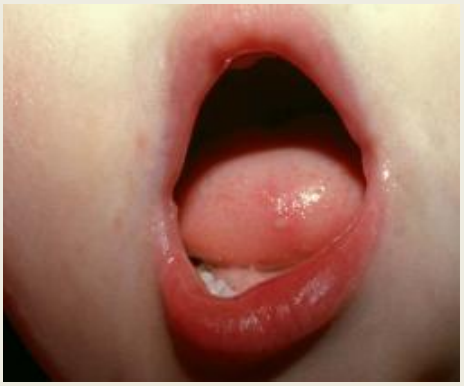
The mouth changes are usually followed by the development of a rash on the hands and the feet, which follows the same pattern of development into vesicles and ulcers.

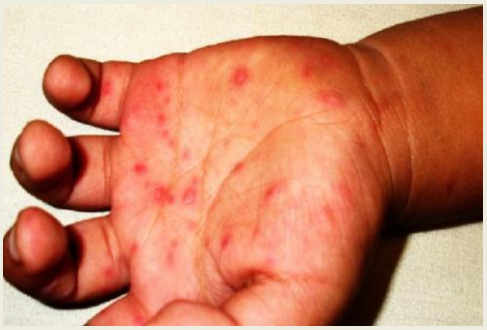
The most commonly affected areas are the palms and soles but also on the fingers and toes.

The presentation is extremely variable. On the one extreme, a very mild attack may result in a minor temperature increase with irritability and the development of one or two ulcers in the mouth. Such episodes may not be recognised for what they are and may be mistaken for "teething" or a minor cold.

At the other extreme the child may develop a high temperature with marked constitutional disturbance and many vesicles/ulcers in the mouth and on the hands and feet.

The distribution of the presentation also varies and sometimes the vesicular rash affects the buttocks and sometimes the groin and lower abdomen.





The actual vesicles and ulcers have a similar appearance to the rash of chickenpox, albeit localised, and the cause of many of the cases is a coxsackie virus related to the chickenpox virus.

Like most viruses the infection is usually spread by coughing and sneezing though im,perfect washing of hands after the toilet may also provide a route. Like chickenpox, the vesicles contain fluid loaded with the virus and direct contact by someone who has not previously had the infection may result in the disease.

Diagnosis is usually made without difficulty by the GP. The age of the patient together with what is usually a history of a number of cases in the same school or nursery, together with the viral symptoms and the distribution of the vesicular rash makes the diagnosis clear.

If, for some reason, a specific diagnosis is required, it can be obtained by taking a swab of a vesicle.

There is no specific treatment for hand, foot and mouth disease. The condition is self-limiting and has usually gone within ten days. Children normally only require supportive treatment; they should rest and drink plenty of fluids, avoid foods that aggravate the ulcers and use symptomatic treatment to ease the symptoms. Such treatment includes *Calpol* (paracetamol elixir) and topically applied local anaesthetic preparations in the mouth.

Most schools and nurseries prefer the children to be kept away when they have the infection (until the last of the vesicles has completely dried over).

Complications of hand, foot and mouth disease are very rare.

Occasionally the vesicles may become secondarily infected requiring an antibiotic, dehydration may occur in the young if they decline to drink fluids because of the discomfort of the oral ulceration and in very rare cases the virus may go on to cause encephalitis or meningitis.

Interestingly the disease was first described only in 1957 in New Zealand.

Most major and significant outbreaks have occurred in China and America although the most recent was in Syria in early 2015.

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