



Avani Oke*

Hand, foot and mouth disease: An introduction

Hand, foot and mouth disease (HFMD) usually affects infants and children. It has emerged as one of the emerging infectious in India. It usually affects children less than 10 years of age.

Causes

It is caused due to an enterovirus 71 (EV71) and coxsackievirus A16 (CVA16) but can also be due to CVA4-10, CVA24, CVB2-5, and echovirus 18 (Echo18).

Transmission

HFMD is highly contagious and is transmitted by nasopharyngeal secretions such as saliva or nasal mucus, by direct contact, or by fecal-oral transmission.

Generally, a person with hand, foot, and mouth disease is most contagious during the first week of illness.

Signs and symptoms

They include:

- Fever.
- Sore throat.
- Feeling of being unwell (malaise).
- Painful, red, blister-like lesions on the tongue, gums and inside of the cheeks.
- A red rash, without itching but sometimes with blistering, on the palms, soles and sometimes on the buttocks.
- Irritability in infants and toddlers.
- Loss of appetite.

The fever can be high, but often is

mild. Blisters on the hands and feet, and ulcers or blisters in the mouth appear 1-2 days after the first symptoms and may last for 2 – 7 days. The blisters often appear in the nappy (genital) area and sometimes on the upper arms, upper legs and bottoms of children.

The symptoms of the hand, foot and mouth disease usually takes between 3 and 7 days to appear. This is called the incubation period.

The disease lasts for around a week to 10 days and often resolves completely on its own without treatment.

Diagnosis

A diagnosis can be made by the presenting signs and symptoms alone. If the diagnosis is unclear, a throat swab or stool specimen may be taken to identify the virus by culture.

Prevention

- Hand-washing
- Disinfecting the toys and personal clothing.
- Isolate contagious people.
- Limit their exposure to others while they have active signs and symptoms.
- Keep children with hand-foot-and-mouth disease out of child care or school until fever is gone and mouth sores have healed.

Vaccine

A vaccine known as the EV71 vaccine is available to prevent HFMD in China as of December 2015. No

vaccine is currently available in India.

Complications

HFMD infections caused by Enterovirus 71 tend to be more severe and are more likely to have neurologic or cardiac complications including death than infections caused by Coxsackievirus A16.

Viral or aseptic meningitis can occur with HFMD in rare cases and is characterized by fever, headache, stiff neck, or back pain.

Other serious complications of HFMD include encephalitis (swelling of the brain), or flaccid paralysis in rare circumstances.

Fingernail and toenail loss have been reported in children 4–8 weeks after having HFMD. This loss is temporary and nail growth resumes without treatment.

Minor complications due to symptoms can occur such as dehydration due to mouth sores causing discomfort with intake of foods and fluid.

Treatment

Unfortunately, there is no medicine or vaccination that can avoid this. The only thing advisable in this case is regular cleaning of hands so that they are always sanitized, take loads of liquids and you may take a medication under medical supervision to combat fever. Analgesics for pain and antipyretics for control fever will be prescribed.

*Principal, K.J. Somaiya College of Nursing, Mumbai.

Some points to take care while treating HFMD are:

- Warm baths for rashes
- Consult a doctor to get medication for the rashes and itchiness
- Avoid spicy, salty, oily food for some time – go bland
- Increase intake of liquids to avoid dehydration
- Take more of curd and yogurt
- Keep your surroundings clean and well sanitized.
- Educate children not to put their hands, fingers or any objects in their mouths

- Keep yourself quarantined for some days. Do not meet anyone just so that they are not exposed to infection. Unless the sores don't dry – you are infectious.
- Disinfect all toys and rooms.
- Consult your doctor immediately if you notice an increase in fever, vomiting, weakness, limb numbness or overall lethargy.

Prognosis

HFMD is usually a self-limiting disease with complication seen rarely. It provides immunity to the child but it can recur.

References

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5618835/>
2. https://en.wikipedia.org/wiki/Hand,_foot,_and_mouth_disease
3. <https://www.slideshare.net/.../foot-and-mouth-disease-an-indian-perspective-794783>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4155884>
5. <https://www.babycenter.in/a1614/hand-foot-and-mouth-disease> ■

Blighted ovum

Continued from page 20

velopment of the fetus. In countries like India, where the Hindu population is usually vegetarian, diets lack sufficient iron. Iron is found in meats, eggs, among other foods. Serbian or Hungarian goulash is a meat and vegetable soup or stew.

Medicines

There are herbal medicines (alternatives to sildenafil and tadalafil) used by different cultures for conceiving and enhancing fertility. In India, some Ayurvedic medicines include Speman for men, Evicare and Shatavari for women. A Himalayan drug company manufactures these. Speman enhances sperm motility and increases the chance of conception in women.

Genetic testing and counseling

Genetic testing (karyotype) and counseling are recommended if a recurrent miscarriage is there in the couple's history. Recurrent miscarriage due to blighted ovum was significantly higher (68.5% versus 31.5%) in consanguineous marriages. Therefore, couples need to be aware of this at the time of marriage and consult a genetic counselor when planning to start a family.

Religious belief

Some couples are hesitant to do a D

and C as per the gynecologist or obstetrician's recommendation. There are several cases when the couple is told that they are going to miscarry. However, they wait it out through prayer and meditation, and when an ultrasound is done again after some time, they find the embryo in the sac.

Conclusion

In most cases a blighted ovum cannot be prevented. Some couples will seek out genetic testing if multiple early pregnancy losses occur. A blighted ovum is often a one time occurrence, and rarely will a woman experience more than one.

Most doctors recommend couples wait at least 1-3 regular menstrual cycles before trying to conceive again after any type of miscarriage.

References

1. Woo JS, Hsu C, Fung LL, Ma HK. Partial hydatidiform mole: ultrasonographic features. *Aust N Z J Obstet Gynaecol.* 1983 May;23(2):103-7.
2. Zeqiri F, Paçarada M, Kongjeli N, Zeqiri V, Kongjeli G. Missed abortion and application of misoprostol. *Med Arh.*

- 2010;64(3):151-3.
3. Robinson HP. The diagnosis of early pregnancy failure by sonar. *Br J Obstet Gynaecol.* 1975 Nov;82(11):849-57.]
4. Yin Y, Zhang T, Dai Y, Bao Y, Chen X, Lu X. The effect of plasma lead on anembryonic pregnancy. *Ann. N. Y. Acad. Sci.* 2008 Oct;1140:184-9.
5. Woo JS, Hsu C, Fung LL, Ma HK. Partial hydatidiform mole: ultrasonographic features. *Aust N Z J Obstet Gynaecol.* 1983 May;23(2):103-7.
6. Bennett MJ, Grudzinskas JG, Gordon YB, Turnbull AC. Circulating levels of alpha-fetoprotein and pregnancy specific beta1 glycoprotein in pregnancies without an embryo. *Br J Obstet Gynaecol.* 1978 May;85(5):348-50
7. Chen HF, Chao KH, Shew JY, Yang YS, Ho HN. Expression of leukemia inhibitory factor and its receptor is not altered in the decidua and chorionic villi of human anembryonic pregnancy. *Hum. Reprod.* 2004 Jul;19(7):1647-54. ■