

Role of Ayurveda in Hand Foot and Mouth disease: A Case Report

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Abstract

Hand-foot-mouth disease (HFMD) is a highly infectious viral disease caused by the non-polio enterovirus family. It is usually found in toddlers and below 10 years of age, but can also occur in adults. The clinical symptoms are low-grade fever, cough, malaise, and typical maculopapular or Vesicular eruptions on the hands, feet, and oral cavity, and sometimes the buttocks and legs. Lesions heal spontaneously in 5-7 days. According to Ayurveda vitiation, Vata pitta doshas lead to rasa rakta Mansa dushti. So in this case Raktashodhak and Pittashamak Chikitsa should be beneficial.

Keywords: Hand foot mouth disease, enterovirus, Ayurvedic Management

Introduction

Hand foot and mouth disease (HFMD) is a highly infectious disease caused by human enteroviruses. HFMD is mainly caused by Coxsackievirus A5, A7, A9, A10, B2, B5 and enterovirus7.⁽¹⁾ It is usually found in toddlers and below 10 years of age, but can also occur in adults. The clinical symptoms are low-grade fever, cough, Malaise, painful red blisters in the mouth and throat, and typical macular papular or vesicular eruptions on the hands, feet, and buttock region.

Other conditions that have been attributed to these viruses are meningitis, acute gastroenteritis, Myocarditis, and nonspecific exanthema other than the hand-foot-mouth disease which is most common in summer and fall. Lesions heal spontaneously in 5-7 days. In this disease, there is mainly modern treatment like Antiviral, and analgesics available which may have many side effects.

In infants and toddlers, irritability and loss of appetite may occur. In this disease often experiences oral discomfort with any intake of liquids or solids. Because of this, dehydration is a primary concern for infants and toddlers are most at risk.⁽²⁾

In Ayurveda, HFMD can be correlated with Aagantuja jwara, as there is Vitiation of Vayu dosha with rakta dhatu which manifest as shool, shotha, and twakvaivarnya.⁽³⁾

Case report

A 6-year-old male child brought by his mother, having complaints of low-grade fever, mild cold, and erythematous lesions on hands, feet, and in the mouth, and buttock region, oral lesions are painful and itching for 2 days. On examination - Painful blister on the tongue. Erythematous papules and vesicles are typically seen on the palmer side of hands and soles; the side of feet is very characteristic. Moderate itching is present at the site of lesions. No discharge from the site.



Figure 1: (unnatural bad habits as per balya Avastha HFMD skin lesions before treatment)



Figure 2: (5 days after treatment have shown how in this figure)

Case Report

| Date | Aaushadhi | Dose | Anupan |
|----------|-------------------|-----------|-------------|
| One week | Paripathadi kadha | 15 ml Qid | Jal (water) |
| | Panchnimba churna | 1gm TDS | Madhu |
| | Gandhak Rasayan | 1 BD | Jal |
| | Urtiplex lotion | LA | |

Paripathadi Kadha is used for skin with skin eruptions. It consist of *Guduchi, Kirataikta, and Haridra*. It is useful in burning sensations in many conditions. It is *tikta rasatmak* and *Pittashamak guna*. It reduces Pitta and gives a cooling effect to the body. It reduces skin rashes and blisters associated with measles, chickenpox, herpes, etc.⁽⁴⁾

Panchnimba churna is an ayurvedic medicine prepared from medicinal herbs and referenced from Bhaishajyaratnavali it consists of *Neem, Haritaki, Vibhitaki, Amlaki, Shunti, Maricha, Pippali, Bramhi, Gokshura, Arushkara, Agni, Vidanaga, Varahikanda, Loha bhasma, Amruta, Haridra, Daruharidra, Sharkara, Kushta, Indrayav, Patha, Khadira, Asana, somavalli, Vijaysar, Bhiringraj*. It is *tikta rasatmak, katu, kashaya sheeta viryatmak. Katu vipaka*. And it acts as

Vranashodhan, Ropan, and jantughana.⁽⁵⁾

Gandhak Rasayan contains *Suddha Gandhak, Chaturjat decoction, Amlaki, Haritaki, Guduchi, Vibhitaki, Adraka, and Bhiringraj juice*. *Suddha Gandhak* is an antiviral component that offers antibacterial effects to treat various skin disorders. It is preventing itching and burning due to pathological causes.⁽⁶⁾

Urtiplex anti-itch lotion is a natural anti-allergic and anti-itch formulation. Herbs like *Kumari* and *Kokum* reduce inflammation and have a soothing effect on skin rash and hives.⁽⁷⁾

Result: The study showed a significant result in treating hand-foot-mouth disease (HFMD) signs and symptoms

| Sr No. | Lakshana | Beforetreatment | After Treatment | % of Relief |
|--------|---------------|-----------------|-----------------|-------------|
| 1 | kandu | 1 | 0 | 100% |
| 2 | Raktavarna | 3 | 1 | 66.67% |
| 3 | Shool | 3 | 0 | 100% |
| 4 | Pidika Unnati | 3 | 1 | 66.67% |

Observation and Result

| Sr. No | Lakshana | Before Treatment | After Treatment |
|--------|---------------|------------------|-----------------|
| 1 | Kandu | 1 | 0 |
| 2 | Raktavarna | 3 | 1 |
| 3 | Shool | 3 | 0 |
| 4 | Pidika Unnati | 3 | 1 |

Assessment Criteria⁽⁸⁾

1. Kandu (Itching)
2. Raktavarna (Erythema)

3. Shool (pain)
4. Pidika Unnati (Papule/ Vesicle elevations)

Kandu (Itching)⁽⁸⁾

| Findings | Grading |
|---|---------|
| No itching | 0 |
| Mild itching (only aware of itching when relaxing) | 1 |
| Moderate (sometimes disturbs sleep and daytime activity) | 2 |
| Severe (constant itching, frequent sleep disturbance) | 3 |

Raktavarna (Erythema)⁽⁸⁾

| Findings | Grading |
|--------------|---------|
| No erythema | 0 |
| Faint | 1 |
| Light red | 2 |
| Moderate red | 3 |
| Bright red | 4 |

Shool (pain)⁽⁸⁾

| Findings | Grading |
|--|---------|
| No pain | 0 |
| Mild pain of an easily bearable nature comes occasionally | 1 |
| Moderate pain but no difficulty | 2 |
| Appears frequently and requires some measures for relief | 3 |
| Pain requires medications and may remain throughout the day | 4 |
| More difficulty: pain is severe, disturbing sleep, and requires analgesics | 5 |

Pidika Unnati (papules/ Vesicles elevations)⁽⁸⁾

| Findings | Grading |
|---|---------|
| No elevations | 0 |
| Elevations cannot be palpable | 1 |
| Elevations can be palpable | 2 |
| Apparently palpable (Approx. about 1mm) | 3 |
| Apparently palpable (Approx. more than 1 mm) | 4 |

Discussion: Unnatural habits as per *balyaavastha* like consuming- chips, Maggie, Chinese food, etc. causes *pittaj chay avastha* in children. These causes bring heaviness to the body. The properties of Kapha and pitta are opposite to each other. In *Sharad Ritu* environmental conditions are in favor of *pitta prakopa*. Thus the children are more likely to easily catch this type of infection. This is *Sam pitta's* condition in favorable of children.

Pittaj prakopa happens naturally in *sharad rutu*. Any pathogenic infection occurring in children with dominant pitta develops symptoms as mentioned above, which can be correlated with *Raktatagajwara*.⁽⁹⁾

In this disease, there are mainly modern treatments like Antiviral, topical corticosteroids, or analgesics available which may have certain side effects.

So in this disease symptoms present are *Raktavarna*, *Pidika-Unnati*, and *shool* which occur due to *vikrut pitta* and *vikrut Kleda*, particularly in *Sam avastha*, so that *Raktashodhak* and *Pittashamak* Chikitsa would be beneficial in HFMD disease.

Conclusion: The study concluded that the given treatment is effective in the case of HFMD and this is one of the safest drugs used in pediatric practices.

Conflict of Interest: Nil

Source of Support: Nil

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References:

1. Reema Rao, Shruthi Hegde, Reshma Suvarna, Subhas Babu Hand foot and mouth disease: A Case report from India July 20, 2013.
2. Clifford Chen Hand foot and mouth Disease a Generalized Overview XV IAPO MANUAL OF PEDIATRIC OTORHINOLARYGOLOGY.
3. Vaidya Vijay Shankar Kale Charka Samhita Chaukhamba Sanskrit Pratishthan Delhi Jwaraadhyaya 1/30-31, 478-479.
4. Dr. Sudhakar Haladvenekara, Dr. Gaytri Bhosekar, Written, Panchbhutikachikitsa Padhatee Aooshadhikalp; Vaidya raj Datar Panchbhutik Chikitsa Shanshodhan Kendra, Sangli 1999; 67.
5. Thakur Nathsingh G Krishna Gopal Bhawan PO Kaleda Krushngopal-305408 (dist.-Ajmer) Rajasthan Vol 1, 266
6. Thakur Nathsingh G Krishna Gopal Bhawan PO Kaleda Krushngopal-305408 (dist.-Ajmer) Rajasthan Vol 1, 255
7. Charak Pharma PVT. LTD 21, Evergreen ind. Estate, Shakti mills Lane, off Dr. E moses Road Mahalaxmi Mumbai www.charak.com.
8. Ranjeet Balasaheb Rupnar, Deepak S. Khawale, and Shradha Dilip Hankare. Role of Durvadi Lepa in HAND, FOOT, AND MOUTH DISEASE – A CASE STUDY V 19 Issue 6, 2020.
9. Prof. K.R. Murthy ASTANGA HRIDYAM VOL-1 (Sutra & Sarira Sthana) Chowkhamba Krishnadas Academy Varanasi Doshabhediyaya adhyaya 12/24, 171.