

Onychomadesis following hand, foot, and mouth disease in a pregnant woman: A case report

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Abstract

Hand, foot, and mouth disease is an enteroviral infection characterized by vesicles on the hands, feet, and oral mucosa. Given its rising incidence among adults, it is important to recognize its variable presentations and sequelae. These include onychomadesis, a complication of hand, foot, and mouth disease that is well described in children, with limited reports in adults. We present the unique case of a pregnant woman who developed onychomadesis following hand, foot, and mouth disease, with no adverse pregnancy outcomes. This case illustrates that (1) onychomadesis can occur in pregnant women with hand, foot, and mouth disease; (2) onychomadesis is typically a benign change that can occur following hand, foot, and mouth disease; and (3) onychomadesis is not necessarily associated with more severe disease or adverse pregnancy outcomes.

Keywords

Hand, foot, and mouth disease, pregnancy, complications, onychomadesis

Introduction

Hand, foot, and mouth disease (HFMD) is a self-limiting enteroviral infection most commonly caused by coxsackievirus A16 or enterovirus 71. It is characterized by vesicles on the hands, feet, and oral mucosa.

While classically a disease of children, worldwide outbreaks of HFMD attributed most frequently to coxsackievirus A6 have recently been reported in adults.^{1,2} Infection with coxsackievirus A16 has been associated with third trimester massive perivillous fibrin deposition triggering intrauterine fetal demise, as well as first trimester spontaneous abortions.^{3,4} Overall, HFMD remains relatively rare in adults and little is known about its sequelae in pregnant women in particular.

A complication of HFMD is onychomadesis, or nail shedding from the proximal nail matrix. Although it has been well documented in children,^{5,6} reports of onychomadesis following HFMD in adults have been limited to case studies.^{7,8} Here, we describe the unique case of a pregnant woman who developed onychomadesis following HFMD.

Case report

A 30-year-old primigravida woman with an unremarkable past medical history presented at 21 weeks of gestation with

finger nail changes that began 3 weeks prior. Initially, nail vesicles appeared on the proximal nail fold of both thumb nails, and then, a new nail plate began to grow underneath the desquamating nail plate, consistent with onychomadesis. Over the next week, similar changes occurred on the remaining eight fingernails (Figure 1). She had no history of psoriasis, recent drug use, or trauma to help account for the nail changes. The patient was otherwise asymptomatic and no topical or systemic therapy was indicated.

Two months prior, at 13 weeks of gestation, the patient had had a low-grade fever and sore throat followed by a vesicular eruption on her volar palms (Figure 2), feet, and oral mucosa. This occurred after returning from Brazil, where she had interacted with children with a similar presentation. Her primary care physician in Canada diagnosed HFMD. The eruption resolved spontaneously. Routine

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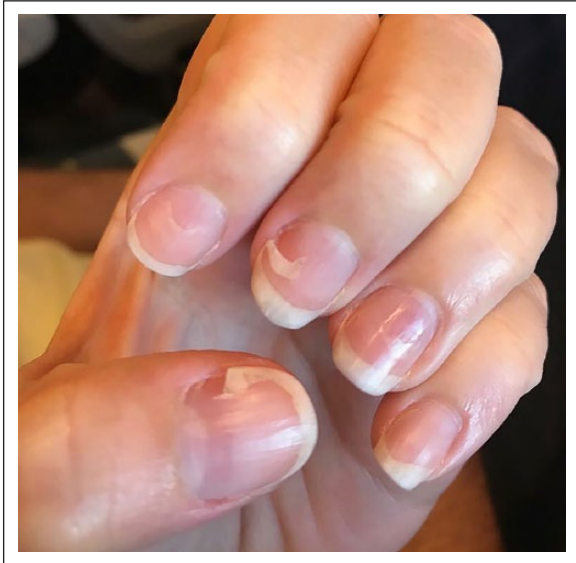


Figure 1. Onychomadesis following HFMD.



Figure 2. Hand lesions associated with HFMD.

pregnancy investigations, including a complete blood count and repeat ultrasound, were unremarkable. A TORCH screen was positive for herpes simplex virus (previous exposure), with no clinical history. The remainder of her pregnancy was unremarkable.

Discussion

The increasing incidence of HFMD in adults highlights the importance of recognizing its various presentations, including onychomadesis. Although only few reports of onychomadesis

exist in adults, and none in pregnant women, this finding may be underreported.

Various mechanisms have been postulated to explain the nail matrix arrest that results in onychomadesis following HFMD, with no consensus yet. These suggestions include the fever associated with the infection, inflammation due to periungual lesions, and viral replication within the nail matrix.⁹ Given that the patient in this case had a low-grade fever and periungual lesions, these theories may help explain the changes seen. Furthermore, although there is insufficient evidence to suggest an association between the severity of HFMD and onychomadesis post-infection, the presence of viral replication within the nail may be an underlying contributor to onychomadesis.⁹

Despite case reports of miscarriage following HFMD, there is currently insufficient evidence that HFMD increases the risk of serious pregnancy complications.¹⁰ Thus, it is important to recognize that (1) onychomadesis can occur in pregnant women with HFMD; (2) onychomadesis is typically a benign change that can occur following HFMD; and (3) onychomadesis is not necessarily associated with more severe disease or adverse pregnancy outcomes. This knowledge will help provide patients with reassurance and avoid unnecessary treatment.

Declaration of conflicting interests

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Informed consent

The patient provided written consent for her images to be published.

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