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CASE REPORT

Toddler Molluscum Contagiosum on the Nipple

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Abstract: This case presenting a rare occurrence of Molluscum contagiosum (MC) on the nipple of a nineteen-month-old toddler. Clinical and dermoscopy examination revealed yellowish papule consistent with Molluscum contagiosum (MC). The lesion was extracted using a 30-gauge syringe needle. After two months, a follow-up dermoscopy revealed total clearing. This case illustrates how uncommon MC is in unusual places, like toddler's nipple, and shows how useful dermoscopy is for making diagnosis and treatment easier.

Keywords: toddler, dermoscopy, nipple, viral disease

Introduction

Molluscum contagiosum (MC) is a prevalent, self-limiting viral infection caused by a poxvirus from the Molluscum genus[1] primarily affects the superficial layers of hair follicle units and is characterized by yellowish papules with central umbilication.[2] MC is commonly observed in children, notably on the trunk, limbs, intertriginous regions, genitals, and face, except the palms and soles whereas in adults, lesions typically arise on the lower belly, thighs, genitals, and perianal areas.[1,2] MC virus proliferates within the cytoplasm of follicular infundibulum epithelial cells, which explains its rarity on non-hair-bearing areas outside of the severely immunosuppressed setting.[1,2] Immunocompromised individuals or those with atopic dermatitis may have lesions in uncommon sites, appearing with many or diffusely dispersed MC lesions.[3] These unusual locations might include the oral mucosa, palms, soles, extremities, areola/nipple, conjunctiva, lips, and eyelids.[2] MC of nipple is seldom recorded[4] with all cases reported in the literature being adult.[1] Herein, we describe the first case of molluscum contagiosum affecting the nipple of a healthy non-HIV toddler.

Case Report

A healthy nineteen-month-old toddler presented with a yellowish dome-shaped papule on the left nipple. Four months earlier, his mother noticed a lesion on his left nipple that slowly increased in size. The lesion was neither painful nor pruritic. His mother denied contact with a family member who had a similar lesion. Examination revealed a yellowish papule with a central umbilication on the left nipple (Figure 1a). Dermoscope (DermLite DL4, ×10; non-polarized mode) examination revealed rounded white to yellowish amorphous structures (clods) surrounded by a pink rim (blood vessels) (Figure 1b). The lesion was diagnosed as Molluscum contagiosum (MC) and extracted using a 30-gauge syringe needle in two session one week apart. Unfortunately, a cytological confirmation was not done. One week after the first treatment session, dermoscopy shows fine serpentine vessels (mixed crown and radial pattern with an orifice) and decreased the size of yellowish clods (Figure 1c). We scheduled follow-up visits for the patient until the lesion was completely cleared within 2 months (Figure 2a and c) with no recurrent at 6 months (Figure 2b and d).

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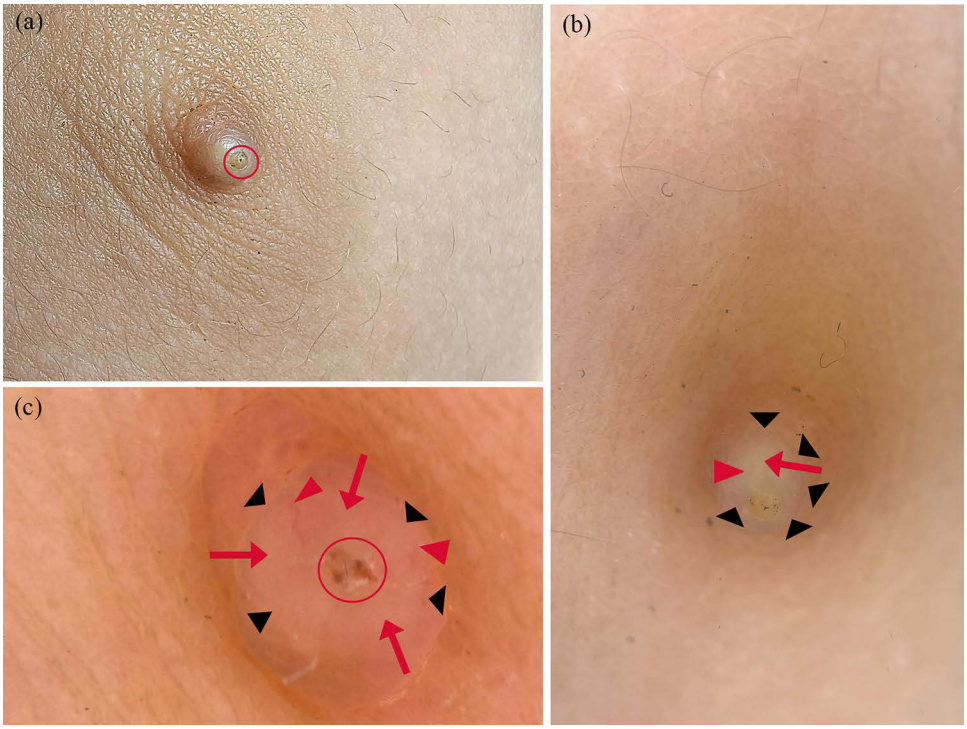

Figure 1 Clinical and dermoscopy characteristics of molluscum contagiosum. (**a**) A yellowish dome-shaped papule with an umbilicated center (red circle). The dermoscopic image of the lesion (**b** and **c**) at pretreatment and 1 week post treatment shows white-yellow clods (red arrows) with mixed crown (black arrow heads) and radial vascular (red arrow heads) pattern with an orifice (red circle).

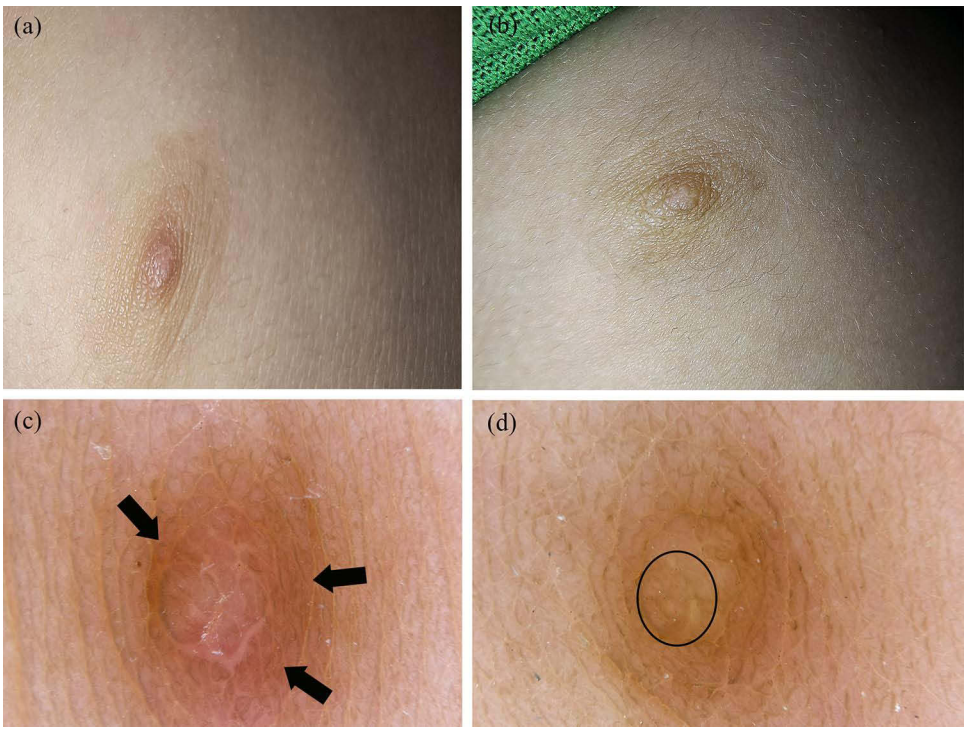

Figure 2 Follow-up clinical and dermoscopy of the nipple and areola. Complete clearance of the lesion at 2 months(**a**). No recurrent at 6 months of follow up (**b**). Dermoscopic image (**c** and **d**) with follow-up at 2 months and 6 months respectively show central homogenous whitish and pinkish structureless area with multiple, small whitish globules corresponding to the tip of the nipple (black circle) and Light-brownish network-like structures with several, tiny, regular, rounded globules corresponding to areola (black arrows).

Discussion

MC is a self-limiting viral disease, predominantly affecting children and sexually active adults.[4] Children are susceptible to molluscum contagiosum infection because of their immaturity in immune systems, especially in close-contact environments like swimming pools or shared bathtubs.[4] Clinically, MC appears as 1- to 5-mm, pink to skin-colored, firm umbilicated papules with a pearly surface, often affecting the trunk, axillae, popliteal fossa, and antecubital fossa.[2,5]

On rare occasions, an unusual appearance in terms of size, location, and number makes a diagnosis more challenging.[6] According to previous literature, in children, the most frequently affected areas are the head and neck, followed by the trunk, upper extremities, genitalia, and lower extremities.[7] Atypical locations of MC infection, such as the eyelid, mucous membrane, nipple-areola complex, plantar, genital, and subungual, have been reported; however, all cases are adult or young adult.[1,4,6,8] Fujita et al,[9] reported a case of MC of the corneal limbus in an adult immunocompromised patient. Congenital MC on scalp and extremities in infants have been reported in the literature,[10] there are no reports of MC on toddlers' nipples.

The diagnosis of MC is often established on clinical dermoscopic grounds;[11] however, a more conclusive diagnosis may be achieved via biopsy or cytology. The characteristic findings of homogeneous, acidophilic Henderson-Paterson bodies are diagnostic for MC.[1] In our outpatient clinic, the cytopathology is not feasible. On the other hand, dermoscopy is a rapid, non-invasive diagnostic approach that is easy and affordable; additionally, it may be performed frequently in the doctor's office.[12] The differential diagnosis of areola and nipple complex MC includes milia, papular urticaria, mole, folliculitis, lipid-containing xanthoma, keratoacanthoma, papular granuloma annulare, syringoma, basal cell carcinoma, HPV infection, cutaneous fungal infections (coccidioidomycosis, cryptococcosis, or histoplasmosis), glandular (adenomatous) hyperplasia, and leiomyoma.[2,3] Dermoscopic examination of MC lesions can be helpful. The described dermoscopic features of MC include polylobular, white-yellow, amorphous structures in the center encircled by crown vessels that do not cross the centers of lobules.[1] MC dermoscopic differential diagnosis includes sebaceous differentiation diseases, such as nevus sebaceous, sebaceous adenoma, and sebaceous hyperplasia.[1] Vessels encircling yellow clods are not only found in MC but also in sebaceous tumors. However, the arrangement of yellow-white clods is more consistently distributed over the lesion in MC than in sebaceous hyperplasia. Also, MC can be distinguished from sebaceous tumors by its larger clods and whiter color.[1] Currently, the need for active treatment of MC is controversial, given the self-limited course of the disease; some lesions endure 3–4 years, while most self-limit within 6–9 months. The "beginning of the end" (BOTE) sign refers to clinical erythema and edema of an MC skin lesion during the regression phase. This is likely due to an immune response to the MC infection, not a bacterial superinfection.[2] Although there are a variety of treatment modalities for MC, cantharidin, cryotherapy, electrodesiccation, curettage, and podophyllotoxin are the most common first-line treatments.[4] This study is limited by generalizability and the absence of cytohistological confirmation and diagnostic challenges, such as distinguishing molluscum contagiosum from other similar dermatological lesions.

Conclusion

Since it is uncommon for toddlers to have MC lesions in unusual sites, dermoscopy may be a faster method of diagnosing lesions in atypical locations than more invasive diagnostic techniques like cytology and biopsy. Treatment of MC is still controversial. Due to their own resolution course, however, some parents are still concerned about the location and the contagious nature of MC lesions. Thus, quicker and less harmful procedures involving needle extraction may be applied.

Ethical Statement

Institutional approval was not required to publish this case report.

Declaration of Patient Consent

The patient's father has given his consent to use his son's images and other clinical information reported in the journal.

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Disclosure

The authors have no conflicts of interest to declare for this work.

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