

Milium of the Nipple: Report of Two Cases

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Abstract: This article describes the rapid diagnosis of two cases of white pearl-like papules at the nipple region in infants as milium through the combination of clinical manifestations and dermoscopic examination, thereby reducing potential trauma associated with skin histopathological procedures.

Keywords: milium, nipple, dermoscopy

Introduction

It is extremely rare for milium to occur on the pectoral papillae. Skin diseases occurring on the chest of children tend to cause parental anxiety, and in conjunction with dermoscopy, it can reduce the damage of histologic examination of skin pathology, help to identify rare diseases, and improve the diagnostic rate of the disease.

Case Presentation

A 2-year-old, 8-month-old girl presented with a pearly white papule on the right nipple for 3 months, and another 4-year-old, 4-month-old girl presented with a pearly white papule on the left nipple for 1 month. The breasts with the rashes were normal, and no other lesions were noted. None of them had a history of trauma prior to the onset of the rash, no other discomfort, no scaling, and no breakouts. Dermoscopy showed white, yellowish-white homogeneous structureless areas that were round or round-like, partially fused, and with linear vasodilatation on the marginal surfaces. Considering the patient's young age, the disease was diagnosed mainly in clinical and prognostic aspects (Figure 1). We took papule squeezing corn treatment and the rash disappeared without any other discomfort after treatment.

Discussion

Why do we consider the most likely diagnosis to be milium?

The combination of clinical presentation and dermoscopy can differentiate it (Figure 2):

Milium is most common in young adults and newborns and is found on the eyelids, forehead, and zygomatic areas; occurrence on the pectoral papillae is extremely rare and rarely reported.^{1,2} Milium is usually discrete and can be solitary. The dermoscopic presentation closely resembles that of the patient.

Although it can happen at any age, molluscum contagiosum is more frequent in youngsters and is brought on by a poxvirus infection. A transparent papule of one or more different sizes, perhaps with an umbilicus at the apex, is the usual lesion. Dermoscopy shows big, uniform pink spherules with bent blood arteries in the center.³ The patient's presentation does not support it.

Calcinosis cutis is the deposition of insoluble calcium salts in the skin and subcutaneous tissues, which manifests clinically as solid papules, nodules, or lumps that ulcerate and expel a cheese-colored, oily, gritty material. The lack of additional disorders in these two individuals excluded dystrophic, metastatic, medical, and traumatic cutaneous calcium deposits. In contrast, idiopathic cutaneous calcinosis is most common in men aged 20–40 years and is most common in the scrotum.⁴ Dermoscopic features: single or multiple bright white patches or nodules within the lesions. The nodules are hard, adherent to the surrounding tissues, difficult to push, and more tender to palpation.

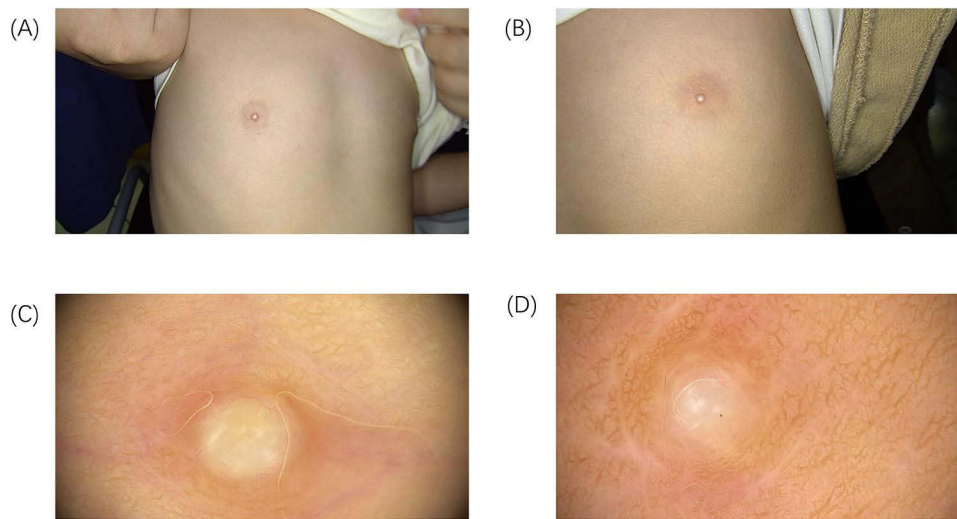


Figure 1 (A) Patient 1 has a pearly white papule on the right nipple. (B) Patient 2 has a pearly white papule on the left nipple. (C) Dermoscopy of Patient 1. (D) Dermoscopy of Patient 2.

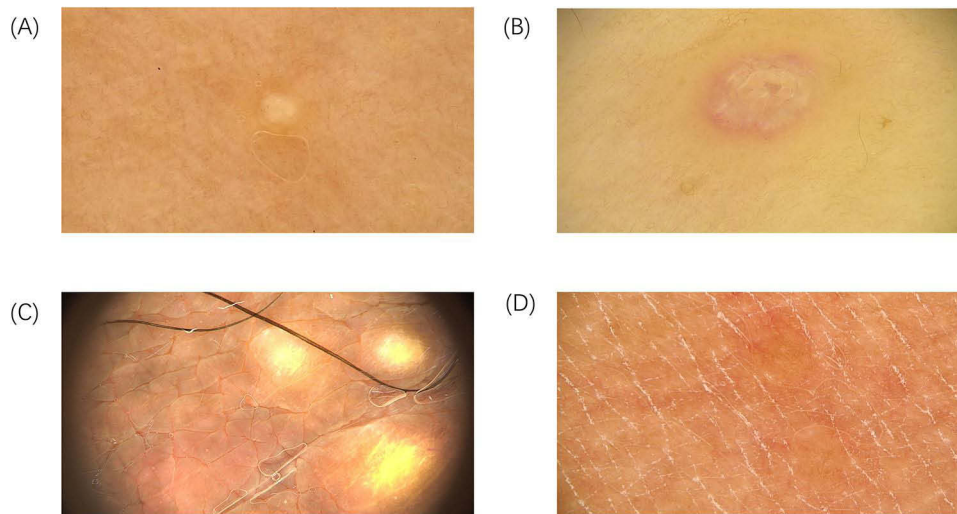


Figure 2 Dermoscopy manifestations of various diseases. (A) Milium (B) Infectious molluscum contagiosum (C) Calcinosis cutis (D) Syringoma.

Syringoma develops on the lower eyelids as many flattened skin-colored or yellowish papules that are firm to the touch and smooth on the surface, and they are generally symmetrically distributed. They occur in the teenage or pregnant population, which contradicts the patients' ages and clinical presentations.⁵ Syringoma often looks dermoscopically as yellow to tan round or oval homogenous masses with an unevenly scattered vascular pattern.

In summary, a differential diagnosis of milium of the nipple is highly probable. This case reminds us that the combination of clinical presentation and dermoscopy can reduce misdiagnosis and mistreatment of milium of the nipple, as well as reduce trauma due to local biopsy, and help to address what may be the most important concern of parents.

Data Sharing Statement

Research data is not publicly available for legal or ethical reasons. Further inquiries can be directed to the corresponding author.

Ethics and Consent Statements

This study was conducted in accordance with the Declaration of Helsinki and approved by the Hangzhou Third People's Hospital Ethics Committee (Approval No.: 2025KA165). The parents or legal guardians of both patients provided written informed consent for the case details and images to be published.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors declare no conflicts of interest in this work.

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