Misleading Clinical Presentation of a Palmar Lichen Nitidus Masquerading as Pompholyx

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Abstract

Lichen nitidus is usually a chronic localized disease of unknown etiology having multiple differentials. A 10-year-old boy presented with itchy, multiple, discrete, grouped, and minute papules with surrounding erythema in some and exfoliation in few others, involving the center of the right palm, the palmar aspect of the left little finger with few lesions over the dorsal surface of both the hands. The presenting feature misguided us with a few clinical points which are unusual in lichen nitidus. We report the case to highlight the clinical mimicry and limitations of clinical assessment for diagnosing lichen nitidus.

Keywords: Differential, lichen nitidus, vesicular palmoplantar eczema, pompholyx, diagnosis

Introduction

Lichen nitidus is a chronic localized disease but may even be generalized.[1] Although it can involve most of the body parts, it is rare to find palmar involvement as the presenting feature. It is usually asymptomatic though pruritus may be associated. The etiology is yet unknown and the differentials include early lichen planus, lichen scrofulosorum, and keratosis pilaris. Histopathology is characteristic and helpful in arriving at the diagnosis. However, circumstances where physicians need to be dependent on the clinical feature alone; diagnosis and management may pose a challenge. The present case highlights clinical mimicry and limitations of clinical assessment for diagnosing lichen nitidus.

Case Report

A 10-year-old boy presented with itchy skin eruptions of palms for the past 2 months. On examination, multiple, discrete, grouped, and minute papules with surrounding erythema in some of them and exfoliation in few others were noted. The sites mainly involved were the center of the right palm [Figure 1] and the palmar aspect of the left little finger with few lesions over the dorsal surface of both the hands. The lesions were nontender and nonpurpuric but were extremely itchy. The rest of the cutaneous and mucosal examination was noncontributary. In view of the severe pruritus associated with the lesions and exfoliation of some of the papules along with its distribution over the acral areas, a provisional diagnosis of pompholyx was perormed while lichen nitidus was kept as a differential diagnosis. A trial of topical mometasone for 15 days was given as the parents did not give consent for a skin biopsy. The patient was lost to follow-up but returned after 4 months with relief in pruritus but with new lesions over the lateral surface of both feet and penis [Figure 2]. This time, with the consent of the parents, a punch biopsy from new papules of the right foot was done as palmar lesions were steroid modified, and the penis was an uncomfortable site. Histopathological examination revealed that focal lichenoid tuberculoid granulomatous inflammation involving a single widened dermal papilla. The involved papilla was enlarged and filled up with granulomatous infiltrate of histiocytes, lymphocytes, and a few epithelioid cells. Focal interface change was present overlying the granuloma. The stratum corneum showed

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mounds of parakeratosis above the granuloma [Figure 3]. This was the characteristic "Claw clutching the ball" appearance. Thus, the diagnosis was revised to be lichen nitidus. The patient was started on oral retinoids.

Discussion

The presentation of the case misguided us with a few clinical points which are unusual in lichen nitidus. The lesions in our patient started with palms which are rarely affected in lichen nitidus and pompholyx-like clinical presentation of lichen nitidus is also rare. Palmar lichen nitidus may be of the classical morphology: the typical discrete minute papules or of rarer variants such as confluent hyperkeratotic eczema-like or pompholyx-like.[2] The presentation with exfoliation, severely itchy papules with erythematous base is an unusual presentation for lichen nitidus and closely resembled pompholyx in the present case. One such case mimicking pompholyx was reported nearly a decade ago,[3] where the affected patient was an adult, unlike ours. The striking feature of the present case was that it started from the palm resembling and misleading to be pompholyx. It was only months later that it got disseminated to other parts with its typical presentation. This shows that palmar lesions of lichen planus might have a different morphology even though the other affected sites may be of the classical presentation which may develop in due course of time. A similar scenario of lichen nitidus with different lesional morphologies has been reported by Martinez-Mera *et al*.[4] with a perforating variant over the fingers and the classical lesions over the wrists.

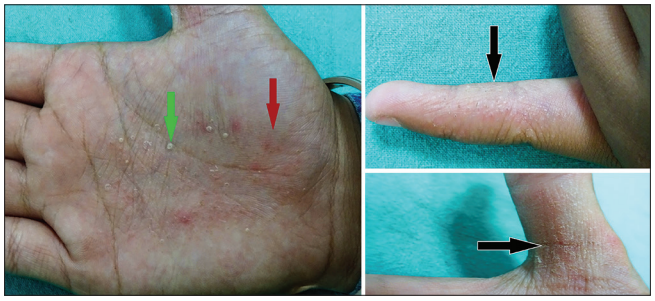

Figure 1: Multiple aggregated minute papules with surrounding erythema (red arrow) in some while exfoliation (green arrow) in others over the center of the palm. Black arrows show similar papules over the little finger and thumb

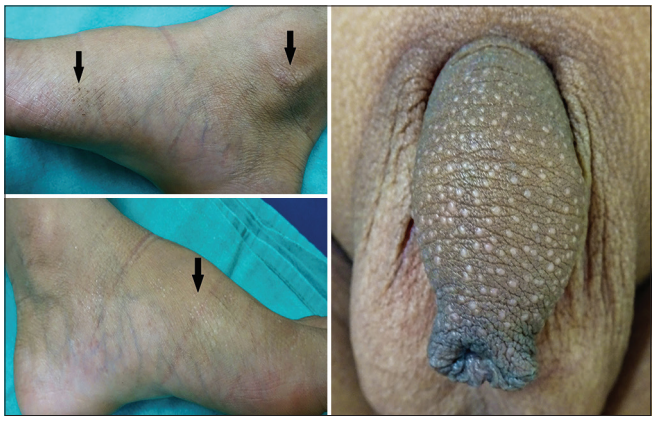

Figure 2: Multiple aggregated minute papules over the lateral surface of both feet, and multiple, pin-head sized, discrete but grouped, flat-topped, and shiny papules over the dorsum of the penis

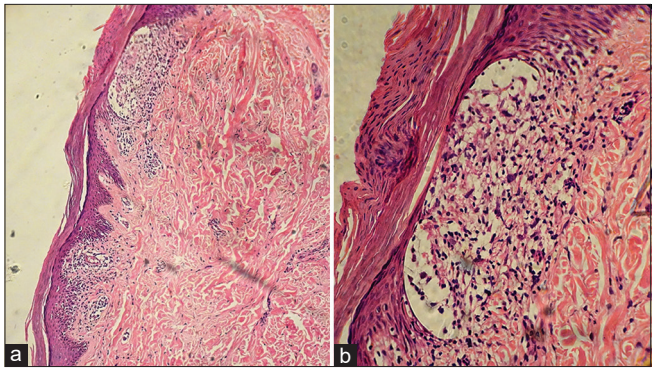

Figure 3: Focal lichenoid tuberculoid granulomatous inflammation involving a single widened dermal papilla showing the characteristic "claw clutching the ball" appearance ([a]: H and E, ×10 and [b]: H and E, ×40)

Further, pruritus is an unusual complaint, in contrast to our patient whose primary reason for consultation was the associated intense pruritus. Isolated palmar lichen nitidus is rare,[5] and a diagnostic difficulty without histopathological examination like in our case, which presented initially with isolated palmar lesions. The characteristic histopathological finding of "claw clutching a ball" appearance helps in establishing the diagnosis even if the clinical presentation is not classical. Recently, dermoscopy has gained importance where the white circles correspond to epidermal acanthosis, and the central brownish shadow reflected through the white circles corresponds to the inflammatory infiltrate enveloped by the acanthotic rete ridges.[6] Dermoscopy was not done in our case due to unavailability at that time. It usually responds to topical and systemic steroids, but retinoids help if palms and soles are affected. In our case, itching responded to the topical steroid, but the recalcitrant skin eruptions and its dissemination to other parts indicated the use of oral retinoids and limitations of topical steroids.

Classical skin lesions in lichen nitidus clinch the clinical diagnosis, and when in doubt, histopathological examination helps in achieving a definite diagnosis. However, a histopathological analysis may not be feasible many times, especially in developing countries and with limited-resource set-ups. Clinical suspicion is therefore very essential, especially for lesions on the palms and soles.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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