



Subungual bowen disease simulating onychopapilloma: Case report

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Abstract

Most cases of Localized Longitudinal Erythronychia (LLE) represent local processes, in particular neoplastic, pressure-related, or scar, whereas Polydactylous Longitudinal Erythronychia (PLE) cases are usually caused by inflammatory or acantholytic processes, or simply idiopathic. Bowen disease is the most frequent nail malignancy, usually seen as a verrucous lesion of the nail but it can be revealed by longitudinal erythronychia. Herein, we report a case of 38-year-old female who presented with a longitudinal erythronychia band on the 3rd left nail. Clinically differential diagnosis was an onychopapilloma. Surgical excision was performed. Histopathological examination, and Immunohistochemistry confirmed the diagnosis of Subungual Bowen disease.

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Introduction

Squamous cell carcinoma is a common carcinoma of the nail, but Bowen's disease - SCC in situ is rarely diagnosed. Longitudinal Erythronychy (LE) is one of the most underestimated clinical presentations [1,2]. There are several differential diagnoses including other neoplasias, scars, inflammatory and infectious origins. It is therefore always useful in many cases to make a clinico-pathological correlation to retain the diagnosis. Malignancy is uncommon, but not rare, squamous cell carcinoma in situ is the most common malignancy. We report a case of subungual Bowen disease revealed by longitudinal erythronychia in a 38-year-old woman.

Case Report

We report a case of a 38-year-old woman with no significant medical history, presented to our departement of dermatology with a 4-years history of a 2-mm-wide longitudinal erythrony-

chia band on the 3rd left nail of the dominant hand with no history of infection, trauma or radiation. Clinical examination revealed the presence of a longitudinal erythematous band with distal encoched onycholysis. Dermoscopy showed longitudinal erythronychia followed by leukonychia and at the free edge of the nail: Subungual keratosis in the junction area between the nail plate and the band. After avulsion of the nail plate, a longitudinal excision biopsy of the nail unit including the distal matrix, the nail bed and the hyponychium was then performed. Anathomopathology showed a proliferation of keratinocytes that were atypical and non-aligned in the epidermis of the proximal and nail matrix beds, with normal aligned keratinocytes in the distal side. We retained the diagnosis of subungual bowen disease and additional excision was performed accordingly. Five months later, there was no evidence of recurrence.



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Discussion

Subungual Bowen disease remains uncommon, often diagnosed late. The age of onset is between 50 to 70 years old with a male predominance and it sits most often at the nails of the first three fingers of the left hand [4,5]. The duration of evolution of lesions at presentation varies between 3 to 5 years.

At the beginning the lesion sits at the lateral nailfold with a progressive extension towards the nail bed and the matrix. Distal onycholysis may occur and is related to the presence of abnormal keratin in the nail bed which may also cause nail dystrophy or detachment of the nail plate. Dermatoscopy of subungual bowen disease is not clearly described in the literature; In our case, it appears to be the primary differential diagnosis

of a benign tumor called onychopapilloma [6,7]. This diagnosis is confirmed by histopathological examination. The treatment of choice is based on the total surgical excision of the tumor for curative and conservative purposes taking into account the aesthetic concern. This attitude implies a good comprehension of the anatomy of the nail apparatus in view of the technical difficulties that can be encountered [5]. Mohs surgery for nail tumors is well established and increasingly used [5].

Conclusion

Not every longitudinal erythronychia with subungual hyperkeratosis should be considered onychopapilloma ; but practitioners should be aware and perform a histopathological diagnosis to confirm the diagnosis



Figure 1: Subungual Bowen disease. A: Clinical image of Longitudinal erythronychia. B: Dermatoscopic image of nail plate. C: Five months after surgery

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