Onikomikoz ile Karışan Tırnak Yatağının Yassı Epitel Hücreli Karsinomu

Subungual Squamous Cell Carcinoma Masquerading as an Onychomycosis

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Özet

Tırnağın tümörleri iyi veya habis nitelikte olabilir. Tırnağa ait tümörlerin değişik histolojik tipleri literatürlerde rapor edilmiştir. Tırnağın yassı epitel hücreli karsinomu oldukça nadirdir ve yanlış tanı konulmaktadır. Bu nedenle bu tümörün insidansını belirlemek oldukça güçtür. Biz bu olgu sunumunda yanlış tanı konulan ve bu yüzden tedavide gecikmeye neden olan tırnağın yassı epitel hücreli karsinomunu sunmayı hedefledik. Tırnak lezyonları, tedavide gecikmeye neden olmamak için dikkatlice incelenmeli ve gerekirse bu lezyonlar histopatolojik olarak incelenmelidir. Histopatolojik tanıya göre uygun tedavi planlanmalıdır.

Anahtar Kelimeler

Onikomikoz, Yassı Epitel Hücreli Karsinoma, Tırnak Yatağı Tümörleri.

Abstract

Tumors of nail unit may be benign or malign. Different histological variants of subungual tumours have been reported. Subungual squamous cell carcinoma is rare, and the disease is often misdiagnosed as a benign condition, therefore it is difficult to estimate the real incidence of this disease. We hereby present a case of subungual squamous cell carcinoma that has previously been treated as leading to a delay in diagnosis and treatment. For this reason, the nail unit changes should be examined carefully and the diagnosis should be done with the histopathological examinations. Proper treatment should be planned according to the histopathological diagnosis.

Keywords

Onychomycosis, Subungual Squamous Cell Carcinoma, Nail Tumors.

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Introduction

The diagnosis and treatment of nail disorders is challenging, because common dermatologic conditions behave differently in the nail than in other skin locations. It has been estimated that 50% of all nail disorders are fungal in nature. One of the most important decisions in managing nail diseases is determining when a biopsy or surgical procedure is appropriate. Nail surgery is helpful in diagnosing suspicious or ambiguous nail tumors and nail dystrophies.

Cutaneous squamous cell carcinoma (SCC) is associated with ultraviolet light exposure; however, there is no such association with subungual squamous cell carcinomas. The relationship between previous human papilloma virus (HPV) infection and subungual SCC awaits further investigation. SCC of the nail bed is a rare disease, although subungal SCC is the most common malignancy affecting the nail bed.[1] Its diagnosis may be easily missed or delayed, because the clinical presentation is not specific. Subungal SCC may mimic several benign inflammatory conditions, such as paronychia, onychomycosis, pyogenic granuloma, frank ulceration or verruca vulgaris. For this reason, it is important to know the features of subungal tumors and its surrounding tissue for early diagnosis. Diagnosis may be made only by performing adequate biopsy. The treatment method depends on the extent of the tumour, and ranges from excision to digital amputation.[2]

Case Report

A 72-year-old male resident of an old-age home presented to a general practitioner in 2006 because of nail lesion of the right first finger that had lasted for more than 8 months. The case was initially treated as onychomycosis; however, the lesion grew rapidly and ulcerated.

The patient presented to our service in 2010 with an inflamed, necrotic, and discharging lesion underneath the nail of his right thumb (Figure 1). There was no history of immunosuppression or trauma. Systemic examination was unremarkable. A punch biopsy was performed for a definitive diagnosis. Histological examination revealed differentiated SCC. Radiography did not reveal any bone involvement, and whole-body bone scanning using technetium Tc 99m demonstrated no distant metastasis. The patient underwent amputation of the distal phalanx of the affected finger (Figure 2). No evidence of metastasis was found in 15 lymph nodes dissected from axilla. Histological examination of the resected specimen showed that the resection margin was clear. The wound healed satisfactorily and there was minimal functional disability (Figure 3).



Figure 1. Subungual squamous cell carcinoma of thumb



Figure 2. Amputation of the distal phalanx



Figure 3.The thumb after amputation

Discussion

SCC is the commonest malignancy of the nail unit although subungal SCC is a rare entity.[3] Subungal SCC usually affects older age groups, with male dominancy. Affected individuals are usually aged 50 to 59 years and most reported cases involve only a single digit—most commonly the thumb.[4]

Diseases of the digit are relatively common and are particularly frustrating in terms of therapy. Unlike many other areas of skin, persisting diseases of the digit will almost always require biopsy to distinguish among a very long list of radically different etiologic possibilities. Subungal SCC may arise from the nail bed, nail matrix, nail groove or lateral folds.[5] While the precise aetiology of subungual SCC remains to be determined, risk factors include sun exposure, repeated trauma, chronic infection, immunosuppression, human papilloma virus infection, radiation and ectodermal dysplasia.[6] Various studies suggest that mucosal HPV (HPV types 16, 31, 54, 58, 61, 62 and 73) may play a role in the development of this neoplasm in nail apparatus tissues.[7] In one study, HPV DNA was present in 80% of cases of subungual squamous cell carcinoma by dot-blot analysis of frozen tissue and 60% were related to HPV 16.[8] Diagnosis of subungal SCC is inherently difficult, because of its resemblance to a variety of benign conditions, such as viral warts, onychomycosis, paronychia, glomus tumours, ingrowing nail, pyogenic granuloma, subungual exostosis, chronic osteomyelitis, traumatic dyschromia, keratoacanthomas and melanotic naevi.[5,9,10] For this reason, its diagnosis may be easily missed or delayed.

Subungal SCC is considered a low grade malignancy and less aggressive than squamous cell carcinoma arising in other parts of the body. Subungual SCC runs an indolent course and may present with minimal symptoms.[6] It is usually located at the sulcus of the nail, and presents as a mass under the distal lateral edge of the nail, and a long term history of several years is present.[11] In general the presence of a large exophytic mass located at the distal portion of the finger suggests the clinical diagnosis of a squamous cell carcinoma or an inflammatory process. Findings raising suspicion of subungual squamous cell carcinoma include nodularity, bleeding, ulceration, and unresponsiveness to conservative treatment.[11] A rapidly-growing, ulcerating lesion would certainly alert the clinician to investigate further for malignancy. Slowly growing forms when combined with subtle signs and reluctance of the physician or the patient might result in a delay of the appropriate treatment. The time to diagnosis has been reported to be four years on average.[2-6] For this reason, disorders of the nail apparatus are often considered "minor diseases", but we stress that if nail lesions are recurrent, persistent or insensitive to treatment, skin biopsy is advisable to prevent misdiagnosis.[5]

Subungual SCC is so rare, an appropriate, standardized treatment approach has not been defined. Treatment depends on the extension of the tumour and may vary from wide local excision to amputation of the distal phalanx and lymph node dissection in the case of metastasis. Lesions without extension to bone

may be microscopically excised (known as Mohs micrographic surgery) with minimal tissue loss and clean margins. In addition, the biopsy specimen would better include central and peripheral areas of the lesion because skin cancers might have a lateral growth phase.[11] Sentinel lymph node biopsy is generally not considered part of the surgical algorithm for management because axillary lymph node involvement and distant metastasis are uncommon.[4] However, distant metastasis is rare and fatal.[12,13] For this reason, a long term 3-10 years follow-up is recommended due to indolent course. Relapse rate after surgical treatment is low (5%).[14]

In conclusion, nail SCC remains a very challenging clinical situation. Its diagnosis is often mistaken with onychomycosis. However a careful examination of nail changes might lead to the correct diagnosis. Relevant clinical criteria were subungual hyperkeratosis, subungual haemorrhage, ungual dystrophy, trachyonychia, longitudinal melanonychia, erythronychia, leuconychia and subungual tumoral syndrome. The probability of a subungual malignancy should be considered if there is pigmentation of the nail bed, persistent onychia, paronychia, or chronic granulation of the nail bed, cracking or displacement of the nail bed or persistence of a lesion after damage to the nail. Mycological cultures are useless to rule out nail SCC, and only an adequate surgical biopsy should be regarded as a valuable diagnostic test. Nail plate removal with nail bed biopsy is the rule for chronic persistent or recurrent nail bed lesion or in case that fails to respond to a reasonable trial of conservative treatment to rule out subungual squamous cell carcinoma.

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