

## Periungual Squamous Cell Carcinoma Mimicking Subungual Verruca Vulgaris

Tekden Karapınar,<sup>1</sup> MD, Ali Haydar Parlak,<sup>1</sup> MD, Betül Şereflican,<sup>1</sup> MD, Fahri Yılmaz,<sup>2</sup> MD

<sup>1</sup>Department of Dermatology, Izzet Baysal Medical Faculty, Abant Izzet Baysal University, Bolu, <sup>2</sup>Department of Pathology, Izzet Baysal Medical Faculty, Abant Izzet Baysal University, Bolu, Turkey

E-mail: tek\_den@hotmail.com

Corresponding Author: Dr. Tekden Karapınar, Department of Dermatology, Izzet Baysal Medical Faculty, Abant Izzet Baysal University, Bolu, Turkey.

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**Key Words:** Periungual squamous cell carcinoma, subungual verruca vulgaris

### Abstract

**Observation:** Subungual squamous cell carcinoma is a rare disease, which frequently manifests itself with atypical clinical presentations, leading to delayed diagnosis. A 67-year-old woman was admitted to our clinic for a wart-like lesion located in the tip of the fourth finger of the right hand for approximately one year. There was a plaque with verrucous character, painful, papillomatous protrusions on the distal lateral tip of the finger. The histopathological evaluation of the biopsy material taken from the lesion showed findings compatible with squamous cell carcinoma. We report this case to highlight that clinicians should be kept in mind squamous cell carcinoma for the periungual papillomatous lesions similar with verruca vulgaris.

### Introduction

Squamous cell carcinomas (SCC), malignant melanomas, verrucous carcinomas to keratoacanthomas are tumors on the nail bed [1]. Subungual squamous cell carcinoma is the most common malignancy of the nail bed [2]. It is more frequent in men and generally occurs in the fifth decade of life. SCC affects the thumb, the index finger and rarely, the great toe [3].

Subungual squamous cell carcinoma is a rare condition, which frequently manifests itself with atypical clinical presentations, leading to delayed diagnosis. The presence of a tumor can be masked by the presence of infections or other misleading pathological conditions

[4]. We report this case to highlight that clinicians should be kept in mind squamous cell carcinoma for the periungual papillomatous lesions similar with verruca vulgaris and periungual squamous cell carcinoma is uncommon.

### Case Report

A 67-year-old woman was admitted to our clinic for a wart-like lesion located in the tip of the fourth finger of the right hand for approximately one year (Figures 1 and 2). There was a plaque with painful, papillomatous protrusions on the distal lateral tip of the finger. The dermatological examination revealed a crusted plaque which has central ulceration, peripheral verrucous lesions and nail



**Figure 1.** A crusted plaque which has central ulceration, peripheral verrucous lesions and nail deformity

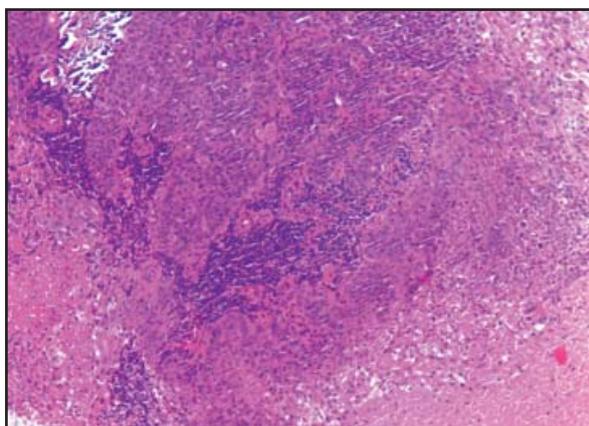


**Figure 2.** Close-up view of the lesion

deformity. The patient was diagnosed with wart at the outside center and had cryotherapy. Histopathological examination revealed a tumor formation on the surface of the ulcer-fibrin-like tissue with cells showing localized keratinization, which showed stromal invasion under the epithelium. The tumor consisted of large, hyperkromatic nucleus, prominent nucleoli, large eosinophilic cytoplasmic cells, and mitosis (**Figure 3**). Immunohistochemical studies performed revealed p63 positive, S100 and HMB-45 negative in tumor cells. The histopathological evaluation of the biopsy material taken from the lesion showed findings compatible with squamous cell carcinoma. According to the result of the punch biopsy, the patient was consulted to the plastic surgery.

**Discussion**

Cutaneous squamous cell carcinoma accounts for approximately 20% of all nonmelanoma skin cancer, and its incidence is increasing worldwide but periungual SCC is uncommon



**Figure 3.** H&E, x200; The tumor is composed of large cytoplasmic cells with large hyperchromatic nuclei and prominent nucleoli, with mitosis and necrosis

[5]. Squamous cell carcinoma(SCC) of the nail bed is usually a low-grade malignancy that rarely metastases, but may invade the distal phalanx [6].

Squamous cell carcinoma can simulate pyogenic granuloma, onychomycosis, keratoacanthoma, other tumors, warts, paronychia or trauma [4].

The etiology of subungual squamous cell carcinoma is not exactly known. Subungual squamous cell carcinoma has been associated with radiation, chronic infection, chronic paronychia, HPV infection, arsenic ingestion, tar, minerals, trauma, congenital ectodermal dysplasia and sodium hypochlorite. Smokers may also have an increased predisposition [4,6].

Initial symptoms of such a neoplasm may include swelling, inflammation, ingrown nail, dyschromia of the nail plate, erythema, nail separation, nail dystrophy, bleeding and pain [7,8,9]. Early lesions imitate paronychia or verruca vulgaris. This disease is more common in men after the 5th decade. Common locations are the thumb and longer fingers, but the smaller fingers or toes may be affected [7].

Affected individuals are usually 70 to 80 years old. Digits of the hand ( especially, one digit ) are involved more frequent than those of the feet. Involvement of multiple digits are rare. The thumb and especially the distal phalanges are most frequently affected [4].

Kreuter et al. detected that most periungual SCCs are associated with  $\alpha$ -HPV infections other than HPV16. The high proliferative activity assessed by Ki67 immunostaining may be an important factor underlying the aggressive behaviour and high recurrence rate of periun-

gual HPV-positive SCCs. For this reason, this disease should be followed closely [5]. We were not able to perform HPV search and typing in our patient.

Mohs surgery and digital amputation are the most frequently used treatment [10]. Local excision, amputation, photodynamic therapy, CO2 laser, curettage with or without fluorouracil 5% or imiquimod 5% cream, and electrochemotherapy with bleomycin and bleopuncture with imiquimod cream, radiation therapy are successful treatment options [2,10]. Because of the rarity of subungual squamous cell carcinoma, there is no consensus regarding its optimal treatment [6]. Metastasis in SCC of the nail unit is uncommon but has high mortality. There are many treatment options depending on the severity of the disease and the condition of the patient; including distal interphalangeal joint disarticulation, amputation of the affected digit, Mohs micrographic surgery, or curettage and radiation therapy [7].

As a conclusion, We report this case to highlight that clinicians should be kept in mind squamous cell carcinoma for the periungual papillomatous lesions similar with verruca vulgaris

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