

---

# A retrospective study of squamous cell carcinoma of the nail unit diagnosed in a Belgian general hospital over a 15-year period

Pauline Lecerf, MD, Bertrand Richert, MD, PhD, Anne Theunis, MD, and Josette André, MD  
Brussels, Belgium

**Background:** Squamous cell carcinoma (SCC) is the most common malignant tumor at the nail unit. It mainly affects middle-aged men, with a peak incidence between 50 and 69 years of age. Diagnosis is often delayed because of the slow evolution of the lesion and multiple clinical features.

**Objective:** We sought to characterize the different clinical and histopathological patterns of SCC of the nail unit and evaluate their therapeutic outcome.

**Methods:** Records for 58 patients were retrieved from our department's dermatopathology database over a period of 15 years (1995-2011) and the patients recontacted.

**Results:** Of the 58 patients, 51 were eligible for follow-up. There was a male predominance (72.5%). The fingers were most commonly affected (98%), the right index and long fingers being most commonly affected (20.8% each). The nail bed was mainly affected. The commonest clinical signs were, in decreasing order, subungual hyperkeratosis, onycholysis, oozing, and nail plate destruction. The majority of SCC of the nail unit was in situ (63%). The recurrence rate of all treatments taken together was 30.6%.

**Limitations:** Retrospective study design is a limitation.

**Conclusions:** SCC of the nail unit mostly affects men aged 50 to 69 years. Most cases were the warty type, with oozing being an underrecognized clinical sign. Contrary to prior studies, most lesions were in situ, and bone involvement was uncommon. Conservative surgical resection should be the first-line treatment when the bone is not involved. Recurrence rate is high when a procedure other than Mohs micrographic surgery is performed. (J Am Acad Dermatol 2013;69:253-61.)

**Key words:** Bowen disease; epidermoid carcinoma; nail; nail surgery; nail tumor; squamous cell carcinoma.

Squamous cell carcinoma (SCC) (or epidermoid carcinoma) is the commonest malignant tumor of the nail unit.<sup>1,2</sup> Around 200 cases of SCC of the nail unit (SCCnu) have been reported in the literature since 1850, mostly as case reports. This study describes the clinical, pathological, and surgical features of an additional 51 cases of this rare neoplasm and data are compared and contrasted with the existing literature.

## Abbreviations used:

HPV: human papillomavirus  
SCC: squamous cell carcinoma  
SCCnu: squamous cell carcinoma of the nail unit

## METHODS

Data from 58 patients were collected from the histopathological database of our department from

---

From the Department of Dermatology, University Hospitals Saint-Pierre, Brugmann and Children's University Hospital Queen Fabiola, and Université Libre de Bruxelles.

Funding sources: None.

Conflicts of interest: None declared.

Accepted for publication February 8, 2013.

Reprint requests: Bertrand Richert, MD, PhD, Department of Dermatology, Brugmann University Hospital, Place Arthur Van

---

Gehuchten 4, Brussels 1020, Belgium. E-mail: [bertrand.richert@chu-brugmann.be](mailto:bertrand.richert@chu-brugmann.be).

Published online April 11, 2013.

0190-9622/\$36.00

© 2013 by the American Academy of Dermatology, Inc.

<http://dx.doi.org/10.1016/j.jaad.2013.02.008>

1995 to 2011. Clinical photographs were examined. The following data were retrieved from the patients' files: age, sex, number of anatomic sites, finger or toe involvement, duration of lesions, clinical features, initial diagnosis, treatments tried, additional examinations performed (x-rays, mycology), pathological characteristics (location in the nail unit, in situ or invasive, degree of differentiation, thickness in millimeters of invasion, margins), treatment after diagnosis, and rate of recurrence. Dermal invasion was defined as breaking the basal membrane. In rare instances it was difficult to determine if tumor lobules confined to the papillary dermis represented micro-invasion. A periodic acid–Schiff stain was often used to visualize the basal membrane zone. Patients or their general practitioners were contacted to collect missing data. The Ethics Committee of our hospital approved the study.

## RESULTS

Of the 58 patients for whom records were retrieved, 2 were excluded because of a doubtful diagnosis and 5 for a lack of clinical data. The study thus included 51 patients and 54 tumors, because 2 had polydactylous involvement (3.9%): 1 on 3 fingers and 1 on 2 fingers. Main clinical data are shown in Table I and Fig 1. Patient details are listed in Table II. The clinical signs of SCCnu were variable (Figs 2 to 5). The most frequent were: subungual hyperkeratosis, onycholysis, oozing, and nail plate destruction (Fig 6). Thirty patients could remember when the lesion had started. The average delay for seeking medical advice was 6 years and 4 months (range 15 days–39 years). Among the 16 patients referred to our department (4 from general practitioners, 11 from dermatologists, and 1 from an orthopedic surgeon), SCCnu was suspected in only 2 cases, both by a dermatologist. In contrast, SCCnu was suspected in 36 of 47 cases by dermatologists from our department (76.6%). In 4 cases, no diagnosis was suggested in the patient's file before the biopsy. SCCnu was always misdiagnosed as a wart, either by the referring physician or by the nail expert from our department.

An x-ray was performed in 14 patients, and osteolysis of the distal tuft of the phalanx was noted in only 1 patient with invasive SCCnu. Among the 49

patients with monodactylic involvement, 4 were lost to follow-up after the diagnosis was made either by incisional or excisional biopsy specimen, and 1 patient refused any treatment. Treatment regimens are detailed in Table III (available at <http://www.jaad.org>): surgical excision, amputation, photodynamic therapy, curettage with or without fluorouracil

5% or imiquimod 5% cream, and bleopuncture with imiquimod cream. Surgical excisions encompassed partial ablation of the nail unit, en block ablation of the nail unit with 6-mm margins, amputation, and limited excision with full orientation of the specimen and evaluation of the lateral and deep margins to obtain clear margins. Follow-up data were available in 38 patients with an average time of 40 months (range: 4–177 months). The mean recurrence rate for all techniques was 30.6%, with 28.57% for lateral and deep margins to obtain clear mar-

gins. The recurrence rate for each technique appears in Table III (available at <http://www.jaad.org>). There were only local recurrences, and no regional or distant metastases. No patient died from the disease.

## CAPSULE SUMMARY

- Squamous cell carcinoma of the nail unit affects mainly middle-aged men. Diagnosis is often delayed or incorrect (ie, wart). The nail bed is most commonly involved.
- Of the multiple clinical features, oozing is underrecognized.
- The first-line treatment of in situ or invasive squamous cell carcinoma of the nail unit should be a conservative surgical resection only when there is no bone involvement. The recurrence rate is high when a procedure other than Mohs micrographic surgery is performed.

**Table I.** Clinical and pathological data

No. of patients	51
No. of SCCnu	54
Sex	Male: 37 (72.5%) Female: 14 (27.5%)
Age	60.8 y (21–83 y)
Location	Foot: 1 Hand: 53 Right hand: 33 (62.3%) Left hand: 20 (37.7%)
Pathological findings	Location within nail apparatus Nail bed: 31 (57.4%) Periungual area (folds and grooves): 17 (31.5%) Both (nail bed and periungual area): 6 (11.1%) Degree of invasion In situ: 34 (63%) Microinvasive: 3 (5.5%) Invasive: 17 (31.5%) Depth of invasion: 1.5–8 mm
Osteolysis on x-ray	1/14 cases (7%)

SCCnu, Squamous cell carcinoma of nail unit.

Download English Version:

<https://daneshyari.com/en/article/6073101>

Download Persian Version:

<https://daneshyari.com/article/6073101>

[Daneshyari.com](https://daneshyari.com)