

Subungual Squamous Cell Carcinoma: Report Of Two Cases

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Abstract

Squamous cell carcinoma of the nail bed is rare and commonly diagnosed late. Presentation is not specific and diagnosis rests on biopsy of the lesion. Most cases involve the finger nails especially the thumb nail. We report two cases, the first involving the thumb and the other one the fourth toe. The thumb lesion was managed as a benign lesion for nine years and the nail was removed six times. Biopsy was diagnostic in both cases and they were both treated with amputation of the terminal phalanx of the affected digit. Subungual squamous cell carcinoma should be considered early in lesions around the nail that fail to resolve after adequate conservative management.

CASE REPORTS

Case 1: A 78-year-old man was seen with nine years history of an ulcer around the nail of his left thumb. The ulcer started as a growth under the nail. He had no previous history of trauma to the left thumb. He had been treated with various antibiotics and antifungal drugs. The affected nail was removed six times, the last time about 6 months prior to presentation. On examination, he had a non-tender ulcer on the radial side of his left thumb nail. There was destruction of the lateral part of the involved nail and thickening of the remaining nail stump. He had no axillary lymphadenopathy. X-ray of the affected digit showed periosteal reaction and no obvious invasion of the distal phalanx [Fig. 1]. Abdominal ultrasonography and chest X-ray were normal.

Figure 1

Plain x- ray of the thumb (case 1) showing periosteal reaction in the distal phalanx



Biopsy of the ulcer showed non-keratinizing squamous cell carcinoma. An amputation of the distal phalanx of the

affected thumb was done. The patient has been followed up for three years with no recurrence.

Case 2: A 70-year-old man presented with six months history of an ulcer under the nail of the 4th toe of his left foot. The ulcer was associated with little discharge. There was no prior history of trauma. He was hypertensive and diabetic and regular on his drugs. On examination, the ulcer had an inverted edge and a floor covered with granulation tissue. Only the lower part of the affected toe nail was present. There was no inguinal lymphadenopathy. Biopsy revealed an invasive large cell keratinizing type of squamous cell carcinoma. X-ray of the affected toe, chest x-ray and abdominal ultrasonography were normal.

The patient underwent amputation of the distal phalanx of the affected toe. He had postoperative wound infection that resolved with regular dressings. He has been followed up for two years without signs of recurrence.

DISCUSSION

Squamous cell carcinoma of the nail bed is rare. First described in 1860 by Velpeau [1, 2, 3], it is most commonly seen in the 5th decade of life [4]. Lesions affect the finger nails in 84% of patients, most commonly the nail of the thumb (44%). When the toe nails are involved, 64% involve the big toes [5]. Prior history of trauma or chronic infection of the affected digit is common [6, 7]. Other possible predisposing factors are irradiation, chronic exposure to tar products and previous human papillomavirus infection [8].

Mostly these are slow-growing tumors that arise from the nail fold, epithelium under the nail, the nail matrix or the nail groove. They may appear as subungual tumors, as

eczematous lesions or ulcers around the nail. They may invade the underlying bone but unlike with melanomas, regional lymph node involvement is rare [9]. Few cases of metastasis to the inguinal nodes after toe amputation have, however, been documented [10]. They are generally low-grade malignancies that seldom metastasize. Differential diagnosis includes verruca vulgaris, pyogenic granuloma, onychomycosis, paronychia, melanoma, basal cell carcinoma and metastasis to the phalanx. Delay in diagnosis is almost the rule with most lesions initially managed with antibiotics and antifungal drugs. [Case 1 was diagnosed after 9 years.] Biopsy and histology is diagnostic.

Most cases are managed with amputation of the affected phalanx. Amputation alone carries excellent prognosis. In early cases, limb preservation may be achieved with Mohs microsurgery and with wide local excision. Reconstruction after local excision can be achieved with full thickness skin grafts or with local flaps like dorsal V-Y flaps, Brunelli flaps and lateral pulp flaps [10, 11, and 12]. Some patients have been managed primarily with radiotherapy with good results [13, 14, 15].

No consensus has been formed on prophylactic dissection of regional lymph nodes and the use of adjuvant chemotherapy. Bleomycin has, however, been used in some patients. Both patients were treated with amputation and have shown no features of recurrence at follow-up.

Subungual squamous cell carcinoma is a rare tumor with excellent prognosis. Diagnostic delay should be avoided by early biopsy of nail bed lesions that fail to resolve after adequate conservative treatment.

References

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