Case Report

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Squamous cell carcinoma of the nail bed: a case report

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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. This condition can be easily misdiagnosed, especially if there is preceding trauma. We are also reporting such case involving the thumb. A 70 years old male patient presented at OPD with complaints of pain and ulcer over left thumb since last 4 months. Patients had lost his thumb nail 6 month back and since then was treated on Ayurvedic treatment. Patient does not give a history of trauma. Biopsy of the ulcer revealed Squamous Cell Carcinoma. His X-ray did not reveal any infiltration and hence a distal phalanx amputation of thumb was performed. Patient had an uneventful post-operative course and on 9 months follow up showed no recurrence. Rare still subungual squamous cell carcinoma should be considered early in lesions around the nail that fail to resolve after adequate conservative management. Early detection helps change surgical treatment from amputation to more preserving techniques like Moh's or wide local flap reconstruction.

Keywords: Squamous cell carcinoma, Nail bed, Amputation, Thumb

INTRODUCTION

Primary malignant subungual tumors are rare, although of these, Squamous Cell Carcinoma (SCC) is the most frequent. Initial diagnosis is frequently delayed by the relatively nonspecific clinical presentation, easily confused with benign inflammatory conditions such as paronychia, pyogenic granuloma, or a common wart. Diagnosis of this kind of lesion is only possible by pathology study of a biopsy. Treatment requires complete excision of the lesion, or amputation of the distal phalanx of the affected finger. We are reporting such an occurrence in one of our patients.

CASE REPORT

A 70 years old male patient presented at OPD with complaints of pain and ulcer over left thumb since last 4

months (Figure 1). Patient complained that he had thickening of nail since past one year and since then has been on regular treatment. Patients had lost his thumb nail 6 month back. Patient is a laborer by occupation. Patient does not give a history of trauma. On inspection the left thumb showed an ulcerated lesion which on palpation had an indurated base. Mobility was difficult to assess and hence an X-ray left hand was performed.



Figure 1: Ulcerated lesion of left thumb.

His x-ray did not reveal any infiltration. A wedge biopsy was taken from the lesion and send for histopathological examination. Biopsy of the ulcer revealed keratinizing squamous cell carcinoma. To assess the evidence of distal metastasis an X-ray chest and USG abdomen were performed which were found to be within normal limit. Patient was posted for terminal phalanx amputation and his terminal digit was amputated (Figure 2). Patient had an uneventful post-operative course and was discharged on 5th postoperative day. No wound complication was seen. On 9 months follow up patient showed no recurrence.



Figure 2: Post-operative sutured wound.

DISCUSSION

Squamous cell carcinoma of the nail bed was first described in 1850 by Velpeau. The actual rate of incidence is not known and the common age of incidence appears to be in the 5th decade. The youngest patient reported to have squamous cell carcinoma of the nail bed was 25 years old. The actual cause is not known. A few possible causes have been suggested. Chronic infections, radiation exposure, human papillomavirus (HPV), burn scars, chronic exposure to sun and chronic dermatitis have been implicated.² Squamous cell carcinoma arising from a psoriatic nail bed has been reported.³ A few authors have reported crush injury, fishbone penetration and paper staple puncture as the cause of trauma preceding subungual squamous cell carcinoma.4 Squamous cell carcinoma of the nail bed can have different clinical presentations, it can resemble chronic paronychia, verruca vulgaris, pyogenic granuloma, ulcerative lesion or present as a small swelling. Most of the reported cases involve the thumb. Differential diagnoses include delayed healing of traumatic wound, chronic nail biting, paronychia and fungal infections. Others include pyogenic granuloma, verrucous carcinoma, subungual metastasis, acral amelanotic subungual melanoma. verrucae vulgaris, keratoacanthoma. Pyogenic granuloma is relatively quite common. It is usually a small, red, oozing and bleeding growth that looks like raw meat. Verrucous carcinoma is rare-it usually occurs in the 6th decade of life and it presents as a slow-growing, fungating, recalcitrant and

exophytic mass.⁵ Subungual keratoacanthoma is a rapidly growing tumor, which presents as a rapidly growing painful mass. X-rays show a lytic, cup-shaped erosion of the distal phalanx. Healing occurs rapidly. A plain X-ray therefore is useful to determine if there is bone involvement. A biopsy often clinches the diagnosis. The treatment of squamous cell carcinoma of the nail bed depends on the extent of the tumor. Moh's micrographic surgery has been used in the early stage of the disease to minimize tissue loss.⁷ For lesions with no bone involvement, wide local excision with no less than 4 mm of normal tissue from the margins of the tumor should be done along with reconstruction of the remaining digit. Reconstruction can be done with full-thickness skin graft or local flaps. Among the local flaps that have been described are a dorsal V-Y flap, a Brunneli flap and a lateral pulp flap.⁸ For lesions with bone involvement, amputation is the treatment of choice. The level of amputation depends on the extent of bone involvement. Radiation therapy has been recommended for the salvage of unresectable subungual squamous cell carcinoma. Our patient did not give history of trauma but definitely his occupation gave a clue to its occurrence. It was difficult to get an adequate margin of safety to preserve his digit and hence decision for amputation was taken.

CONCLUSION

Squamous cell carcinoma of the nail bed is rare condition. Awareness about the disease and a high index of suspicion is necessary to make an early diagnosis. Nail lesions not responding after initial treatment should be biopsied. Early detection of this condition preserves digital amputation and a conservative surgery is always useful.

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