

Case Report

Bilateral lower limb squamous cell carcinoma a rare case

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Received: 14 February 2023

Accepted: 14 March 2023

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ABSTRACT

Cutaneous squamous cell carcinoma is a malignant tumour of the keratinising cells of epidermis or its appendages. It constitutes of 20% of skin malignancy. UV radiation exposure is the most common cause of skin cancer with sun exposed skin of the face and upper trunk being the common site for occurrence. Long term exposure to chemical carcinogen, burn scar, chronic ulcer is among the other risk factors. Skin biopsy is the mainstay of diagnosis in a suspected lesion of SCC. Most SCC can be treated with local excision with margin of 5 mm and a margin of around 10 mm in high risk lesion. Other treatment modalities which do not define the margin status such as radiation therapy, cryosurgery, photodynamic therapy, electro dissection, topical agents like imiquimod can be used in small superficial lesions. The following is a case of 32-year-old male patient with atypical presentation of bilateral lower limb squamous cell carcinoma.

Keywords: Squamous cell carcinoma, Skin malignancy, Occupational disease, Cutaneous lesion, Rare case, Atypical SCC

INTRODUCTION

Cutaneous Squamous cell carcinoma is a malignant tumour of the keratinising cells of epidermis or its appendages. It constitutes of 20% of skin malignancy.¹ It has a strong co relation with exposure to sunlight, chronic inflammation either due to trauma, irritant chemicals, burns etc.

In 1775 Percivall pott attributed the development of scrotal malignancy among chimney sweeper to chronic exposure of the skin to soot particles.² Since then much data has come up regarding cutaneous malignancies and causative agents. Most articles regarding SCC of skin have mentioned chronic UV exposure as one of main causative agent for its development. SCC developing in lower trunk is quite uncommon due to comparatively less UV radiation exposure.

The following is a case bilateral lower limb cutaneous squamous cell carcinoma.

CASE REPORT

A 32-year-old male patient, fisherman by occupation presented with c/o ulcero-proliferative growth over bilateral lower limb since 10 month which started as a small lesion and was gradually progressive. Associated with intermittent non haemorrhagic discharge from the ulcer site since past 2 months. Not associated with trauma, fever, swelling elsewhere in the body.

On examination on left lower limb a ulcer of size approximately 6x5 cm present over the anterior aspect of middle 1/3rd with well-defined margin, rolled out edge and floor consisting of pale granulation tissue with necrotic debris and right lower limb, a ulcer of size approximately 3x2 cm present over the anterior aspect of middle 1/3rd with well-defined margin, rolled out edge and floor consisting of pale granulation tissue

Biopsy was taken from both lesions which came out as moderately differentiated squamous cell carcinoma.



Figure 1: Clinical picture of patient on presentation.

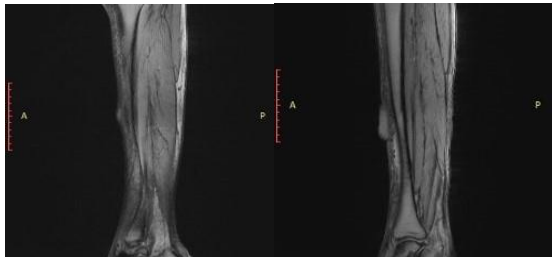


Figure 2: MRI of both lower limb showing depth.



Figure 3: Wound after wide local excision.



Figure 4: Surgical specimen.



Figure 5: Post-operative day 5 after dermal matrix placement.

MRI of bilateral lower limb to rule out involvement of underlying structures. It showed a cutaneous growth with subcutaneous fat stranding with no muscle or bone involvement.

Patient was planned for wide local excision of the tumour, and underwent the same under spinal anaesthesia. Histopathology report was suggestive of bilateral Moderately Differentiated squamous cell carcinoma with all margin free of tumour involvement.

The excision site was managed initially with daily cleaning and dressing followed by acellular dermal matrix placement done under spinal anaesthesia. At post-operative follow at 6 months and 12 months the patient did not show symptoms of recurrence.

DISCUSSION

Squamous cell carcinoma is the second most common skin cancer.³ Various risk factors are associated with development of squamous cell carcinoma. UV Radiation exposure is the most common cause of skin cancer, long term exposure to chemical carcinogen, burn scar, chronic ulcer is among the other risk factors.⁵

Skin cancers as well as precancerous lesions have been shown to have an increased incidence in commercial fishermen.⁴ Fishermen in India are exposed to greater amount of UV radiation, chemicals in the workplace, various cutaneous pathogens that might lead to chronic irritation of the skin.

The usual age of presentation of squamous cell carcinoma is over the age of 60 years.⁶⁻¹⁰

The common site for squamous cell carcinoma of skin being the face and upper limb and trunk due to chronic exposure of skin to UV radiation but in this case the patient presented with squamous cell carcinoma of bilateral lower limb, the exposure of the skin of lower limb to chemical substances present in the water at the work place being the main risk factor for its occurrence.

Aetiology

SCC develops from keratinising cells of epidermis or its appendages, it may develop from a precursor lesion (actinic keratosis, Bowens disease) or as de novo lesion.

In this case the patient had chronic exposure to chemical carcinogens at his work place, which can be attributed as the main risk factor along with chronic UV radiation exposure.

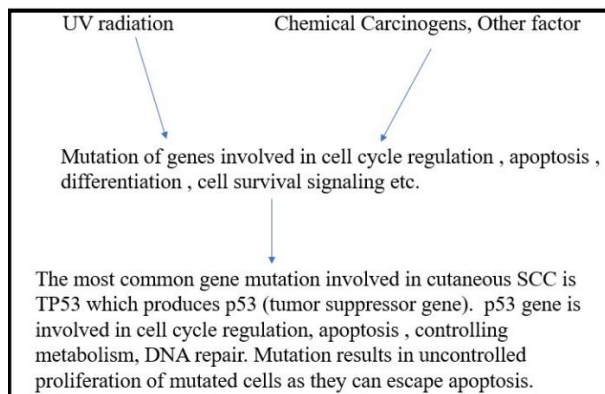


Figure 6: Role of various risk factors in carcinogenesis.

Clinical presentation

The lesions of cutaneous SCC have varied presentation and it depends on the location and time presentation.

Pre-malignant lesions

Actinic keratosis (aka solar keratosis) usually present as scaly, well defined lesion varying in color from pink-red or tan in Indian population ranging from 0.5-2.0 cm in size

Bowens disease (aka squamous cell carcinoma *in situ*) differs from AK in that it is more red in color and can grow to larger size. Some cases present as hard warty lesions.

Invasive SCC

Depending upon the degree of differentiation of the lesion it may present as a scaly lesion of varied size (well differentiated type) to ulcero-proliferative growth, haemorrhagic lesions.

Patient may also present with symptoms of local infiltration, Lymph node involvement is known to occur only in 4-6% and hence rarely patient may present with enlarged Lymph Nodes.²

Present case presented to us with complains of ulcerative lesion with intermittent discharge over both limbs with

recent increase in size and no symptoms of local infiltration or systemic spread.

Investigations and treatment

Skin biopsy is the mainstay of diagnosis in a suspected lesion of SCC. Based on degree of differentiation classified as Well differentiated, moderately differentiated and poorly differentiated.

Sub types include common cutaneous squamous cell carcinoma, keratoacanthoma, acantholytic SCC, spindle cell SCC, clear cell SCC, aden squamous SCC, lymphoepithelioma like SCC.¹¹

In our case the lesion was moderately differentiated classic squamous cell carcinoma with well-defined borders no lymphovascular or perineural invasion thus the patient had no high risk factor present for recurrence.

Treatment

Most SCC can be treated with local excision with margin of 5mm and a margin of around 10 mm in high-risk lesion.

Other treatment modalities which do not define the margin status such as radiation therapy, cryosurgery, photodynamic therapy, electro dissection, topical agents like imiquimod can be used in small superficial lesions.

Adjuvant radiation to primary tumour site is indicated in extensive perineural invasion/large nerve involvement. Locally advanced or metastatic disease is difficult to manage, systemic cytotoxic agents can be used.

In this case the patient had no high risk factor and hence treated with wide local excision (histopathology report showed adequate tumour free margin). And the resulting ulcer was treated with acellular dermal graft placement followed with split thickness skin grafting.

CONCLUSION

Cutaneous squamous cell carcinoma is usually seen in elderly patient with history of chronic UV radiation exposure. In the Present case the patient presented at young age with atypical site of presentation which can be attributed to the exposure of the lower limbs to chemical substance at the workplace. High degree of clinical suspicion is required to diagnose such cases with atypical presentation with history of various exposure at work place playing an important role. Surgery forms the mainstay of treatment in cases which present early and adjunctive therapy reserved for advanced case.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Bakhshi GD, Rathod AG, Gowda TH. Bilateral lower limb squamous cell carcinoma a rare case. *Int Surg J* 2023;10:782-5.