

Squamous Cell Carcinoma of Foot

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Abstract

Cancer Nursing is a great challenge at present Scenario with a shift of focus from Treatment to Prevention. Early identification of warning signs and initiating comprehensive management will bring down the mortality due to malignancy. Squamous cell carcinoma of foot is a malignancy commonly misdiagnosed and undertreated. The health team should perform keen observation and monitoring in cases with non healing ulcers or growths in skin.

Keyword: Squamous Cell Carcinoma.

India being the second most populous country is facing many challenges in meeting the health needs of the population. Cancer prevention and management is one among the many challenges. A recent estimate says that the total cases of cancer are likely to go up from 979,786 cases in 2010 to 1,148,757 cases in 2020 [1]. It is also reported that the incidence of skin cancers are increasing worldwide. Non melanoma skin cancers consists of Squamous cell Carcinoma and Basal cell Carcinoma. SCC is the commonest skin cancer in humans. SCC accounts for 15-39% of all skin cancers [2].

Squamous cell carcinoma (SCC) involving the distal lower extremity, specifically the foot and ankle, may arise from a precursor lesion or may be secondary. SCC is indeed a great challenge to the ability to ambulate along with the overall health of the individual.

Definition Squamous Cell Carcinoma (SCC) is a malignant skin tumor of keratinocytes located in the epidermis or appendages [3].

Causes [4]

Exposure to Ultraviolet Radiation

The UVL (ultra-violet light) acts as both a tumor promoter and initiator by suppressing the tumor suppressor gene. Hence SCC is commonly located in the areas of skin exposed to sun .

Immune Suppressive Therapy

Patients receiving immuno-suppressive therapy for organ transplant have a higher probability of acquiring SCC. Various research studies have shown that cyclosporine in combination with other medications exhibits a higher likelihood for SCC.

Morjolin's Ulcer

The term includes malignancy involving any previously degenerated or Compromised chronic cutaneous alteration . SCC may develop from chronic neuropathic wounds, venous stasis, sinus tracts, osteomyelitis, decubitus ulcerations, warts, burns, or any previously injured skin.

Chronic Osteomyelitis

SCC is the most common malignancy arising from sites of chronic osteomyelitis. Chronic Osteomyelitis is associated with sinus tracts formed within the soft tissue surrounding affected bone.

HPV infection

Beta genus Human papilloma viruses are playing a role in SCC arising from immune suppressed population. ^{Beta} HPV and HPV subtypes 5,8,17,20 and 38 have also been associated to increase risk of SCC [5].

<i>Staging</i>		
Stage	Percentage	No of differentiated Cells
I	>75%	Well differentiated
II	50-75%	Well differentiated
III	25-50%	Differentiated
IV	<25%	Differentiated



Fig. 1:

Clinical Presentation

An indurated nodular keratinising or crusted tumour that may ulcerate, or it may present as an ulcer without evidence of keratinisation.

Diagnosis

- ◆ Nurses and physicians identify lesions before a patient does approximately most of the time while examining a patient for an unrelated condition.
- ◆ CT Scan [6].
- ◆ MRI Scan.
- ◆ The gold standard for diagnosis of skin malignancies is a tissue biopsy. If any doubt exists about the diagnosis, a biopsy is performed.
- ◆ Histology report which includes histopathology subtype, degree of differentiation, tumor depth, level of dermal invasion, presence or absence of vascular, perineural or lymphatic invasion.

Management

- ◆ Surgical Excision
- ◆ Curettage and cautery
- ◆ Moh's micrographic surgery
- ◆ Cryosurgery
- ◆ radiotherapy
- ◆ Amputation
- ◆ Ruling out metastatic disease is also important and can be achieved by sentinel lymph node

biopsy and CT scanning can indicate areas of lymphadenopathy and metastasis.

Finding clear margins is only found histologically and using frozen specimens while in the operating room helps reduce total treatment time.

- ◆ Reconstruction includes primary closure, local tissue transfer, tissue substitutes, split thickness skin graft and free tissue transfer.
- ◆ Surgical management includes oncologist consultation with consideration for pre and post operative need for radiation and chemotherapy.

Nursing Concerns

- ◆ Early detection and referral or treatment of skin malignancies
- ◆ Patients should be educated regarding self examination and foot care practices
- ◆ Nurses play a vital role in providing information on prevention techniques .Nurses should keep updating their knowledge and assessment skills.
- ◆ Surgery is the primary treatment for SCC. Hence it is of vital importance to prepare the patient for surgery and ensure a post operative period without complications.
- ◆ Because many skin cancers removed with excision of action nursing concerns should be to:
 - Relieve pain and discomfort.
 - Provision of appropriate analgesics.
 - Relieve anxiety.
 - Patient education and home care considerations.

Case Study

Mr.X a 61 Year old non diabetic patient reported with an infected corn of the left foot. Excision of the corn was done and patient was discharged with a course of antibiotics. The patient had repeated follow ups as the wound was not healing and treated with various antibiotics and dressings for a period of 2 years . The ulcer was not healing with drugs and sterile dressings and the patient developed osteomyelitis of the metatarsal and had to undergo amputation of the metatarsal bone . The biopsy of soft tissues was done and reported benign. The soft tissues of the excisional area was not healing and was vigorously treated with IV antibiotics and later oral antibiotics for 16 months. The non healing ulcer started developing a cauliflower like growth with raised margins and frequent bleeding from the site.

Patient was referred for oncology consultation. Biopsy of the tissues reported SCC. Patient underwent Below Knee Amputation. Rehabilitation measures followed amputation and patient is now on prosthetic leg.

Conclusion

Squamous cell carcinomas of the foot are mostly underreported and frequently subjected to inappropriate initial treatment [7].

Careful examination of foot ulcers by the health care team will bring down the number of amputations among these patients. Referral for oncologic consultations at the initial stages of non-healing ulcers will definitely reduce the mortality due to SCC.

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