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CASE REPORT

Saree Cancer: a Rare Case

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Abstract

Skin cancers are rather uncommon malignancies comprising less than 1% of all the cancers in India. Drawstring dermatitis is a type of frictional dermatitis that can result from traditional tightly worn garments like “sari” and “salwaar-kameez”. The resulting chronic friction at the waist can lead to lichenified grooves, post inflammatory depigmentation/leukoderma and aggravating pre-existing dermatoses like vitiligo and lichen planus. Chronic friction combined with sweating and humid environment of the tropics predisposes to candida, dermatophytes and bacterial infections. Rarely, squamous cell carcinoma has been reported. Prevention of the condition lies in weight reduction and tying the drawstrings loosely, especially in those inclined to develop koebnerizing conditions. Saree cancer is a rare type of squamous cell carcinoma (SCC). Saree and dhoti are traditional male and female costumes, respectively, which is unique to the Indian subcontinent. Constant wear of this clothing tightly around the waist results in changes in pigmentation and scaling of the skin, acanthosis, scar and ulceration and subsequent, gradual malignant changes. The process of repeated trauma over a long time and consequent interference with the healing process may be the reason for malignant transformation. We are presenting a rare case of saree cancer in a 68-year-old woman, with distant ulceroproliferative growth in left loin, along the waistline, which showed well-differentiated SCC on biopsy. Wide excision with primary closure was done.

Keywords Saree cancer · Skin cancer · Squamous cell carcinoma

Introduction

Squamous cell carcinoma (SCC) is the second most common form of skin cancer after basal cell carcinoma. Risks for SCC include light-coloured skin, long-term sun exposure (UV rays), old age, exposure to certain chemicals, burns, old scars and some types of the human papilloma virus. Nauvari Saree is the Indian traditional female costume, which is her lifetime clothing. In 1945, Khanolkar and Suryabai described this cancer marked by hypopigmented and thickened scars which were more likely to progress into malignant lesion and termed it ‘dhoti cancer’ piece of cotton cloth worn to cover the lower part of the body in most parts of India [1]. The term ‘Saree Cancer’ was first used in the Bombay Hospital Journal by Dr. Patil et al. from Bombay Hospital, India, and created quite a furor in Indian media recently [2]. Saree cancer is analogous to Marjolin’s ulcer in aetiology, involving chronic inflammation.

Saree cancer is a type of SCC of the skin that occurs along the waistline in females wearing saree perpetually. Continual wearing of the tightly bound saree causes persistent irritation and friction resulting in scaling and changes in pigmentation of the skin and eventually resulting in malignant changes. It is a very rare type of cancer and is geographically distributed in the Indian subcontinent akin to Kangri cancer in Kashmir.

Case Report

A 68-year-old woman presented with chronic non-healing ulceroproliferative growth above the waistline on left flank (lady was tying her saree with petticoat at this level) with duration of 8 months. Rapid progression of the ulcer on left flank with growth like lesion had been noticed since past

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Fig. 1 Ulceroproliferative growth in left flank

2 months. The ulcers were preceded by hypopigmented patches and chronic itching at the site for some years. She has been wearing saree since the age of 13 years (Fig. 1). On clinical examination, an ulceroproliferative growth measuring 5 cm × 2.5 cm, with surrounding well-defined hypopigmented margin, was found on her left loin. Serosanguinous discharge was present from the lesion. On palpation, the ulceroproliferative growth was non-tender and was not fixed to the underlying structures. The surrounding skin was scaly. An ulcer measuring 5 cm × 2.5 cm with protruding everted edge and surrounded with induration was present on the left side of the waist. A wedge biopsy from left flank lesion showed a well-differentiated SCC. Complete metastatic workup was done and was negative. The patient had no co-morbidities. Surgery was planned and wide excision of the growth with 2 cm margin and primary closure was done (Fig. 2). On histopathology (Fig. 3), the tumour was found to be composed of a hyperplastic epidermis with sheets of keratinocytes going down into the sub-epithelium and infiltrating it, demonstrating intense mitotic activity, nucleolar pleomorphism and greatly enlarged hyperchromatic nuclei and abundant eosinophilic cytoplasm, suggestive of a well-differentiated SCC with free resection margin of at least 11 mm on all sides. Post-operative period was uneventful.

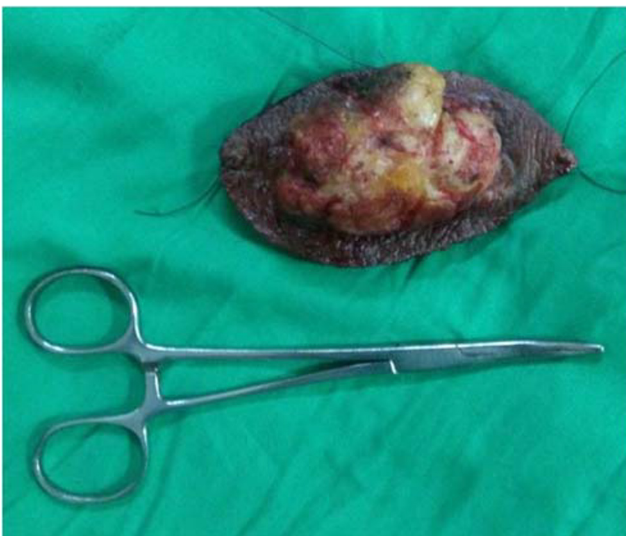

Fig. 2 Resected skin lesion with adequate margin

Discussion

Saree cancer occurs along the waistline in females and is caused by chronic irritation of the skin leading to malignancy. The culprit seems to be petticoat (inner skirt worn underneath to anchor the saree) cord, which, if tied too tight around the same place on the waist day in and day out, can lead to dermatoses (atrophic and keratotic changes in the dermis) eventually leading to ulceration and subsequently malignancy. The persistent irritation of the tight petticoat cord and saree is compounded by the hot and humid tropical climate of the subcontinent and reluctant self-hygiene, especially in Indian rural area. This results in the accumulation of irritants (sweat, dust) within the cord tying area leading to itching and scratching. Changes in pigmentation and mild scaling over the waist in Indian women have become very common, and most women do not notice it until it gets chronic. In urban area, the health conscious individual is prompt in consulting a specialist and receives timely healthcare thus halting the progression of the disease early [3–5].

It is postulated that with chronic repeated irritation to the ulcer, there is a continuous mitotic activity, as epidermal cells attempt to resurface the open defect. This vicious cycle of damage and repair can lead to a malignant change. Lately, genetic postulations that involve the human leukocyte antigen (HLA) DR4 and mutations in the p53 and/or the FAS genes have been proposed. In all known reported cases, the occurrence of the cancer has been at a single site, and wide local excision together with skin grafting had been done. SCCs which develop on chronic skin lesions have a higher incidence of metastasis (9% to 36%) as compared with the carcinomas which arise in previously normal skin (1% to 10%) [6–8].

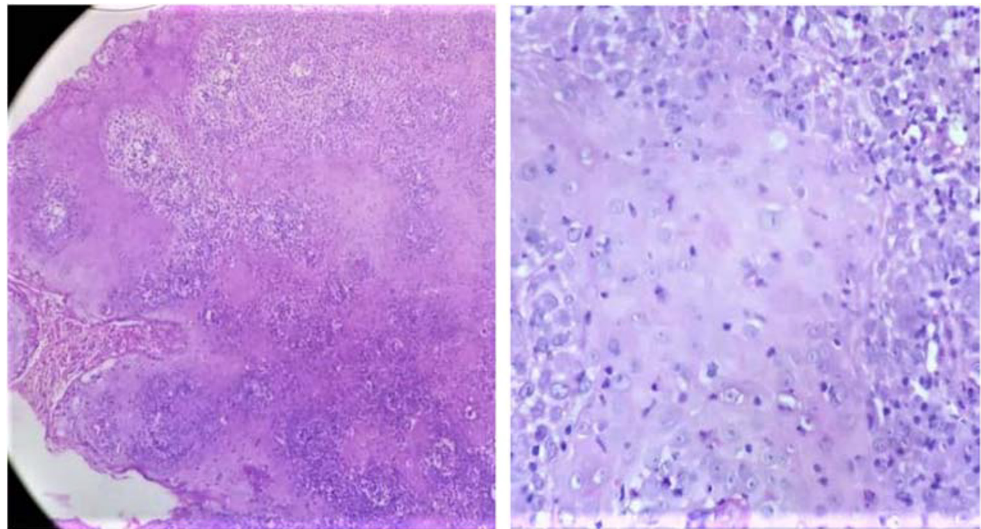

Fig. 3 Histopathology image of the tumour

Conclusion

Awareness of the development of dermatoses in the waist area due to tight tying of the cord of the saree or petticoat is important.

Women who wear saree day in and out should be advised of the following when wearing a saree:

- To tie saree around their waist laxly-especially in individuals with early skin changes in the form of pigmentation variation or scaling
- To wear a petticoat underneath to anchor the saree
- To use a broader belt instead of a cord (nada) in petticoats so as to spread the pressure evenly over a larger area
- To change the level at which sarees are tied intermittently
- To use gown or elastic belt trousers at home
- To maintain cleanliness of the part-more aptly applies for those working out and for rural folk
- To regularly inspect the waistline

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest

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