

## Case Report

## A Rare Disease of the Breast: Bowen's Disease

## Abstract

Bowen's disease is also known as squamous cell carcinoma *in situ* and it occurs predominantly in older patients. Etiological factors for Bowen's disease include ultraviolet light mainly, and in some cases, carcinogenic agents such as arsenic coal tar and petroleum products. It is frequently seen in sun-exposed area; however, other unexposed area can also be affected in few patients. Among the unexposed area, this disease affecting breast is a rare entity. These lesions are erythematous with raised, well-defined borders and a scaly appearance that may be confused with psoriasis. They present with an indolent history, having been present for years with slow growth. Histopathologically, there is atypia of the full thickness of the epidermis without dermal invasion. Progression to squamous carcinoma is slow, but 5% ultimately develop dermal invasion. Treatment generally requires complete excision for both definitive diagnosis and to rule out invasion and cure.

**Keywords:** Bowen's disease, breast malignancy, squamous cell carcinoma

## Introduction

Bowen's disease, also known as squamous cell carcinoma (SCC) *in situ*, is a malignant lesion restricted to the epidermis without evidence of dermal invasion<sup>[1]</sup> and predominantly occurs in older individuals and postmenopausal women. Etiological factor for Bowen's disease includes ultraviolet light and carcinogenic agents such as arsenic, coal tar, and petroleum products. Sun exposure has been shown to be the major environmental cause of Bowen's disease.<sup>[2]</sup> Greater than 80% of nonmelanoma skin cancers are found on sun-exposed areas and that's why Bowen's disease in breast is a rare phenomenon, intending us to report this rare case Bowen's disease of the breast.

## Case Report

A 50-year-old woman presented with complaint of a reddish patch on her right breast since last 2 years and pain in the lesion for the last 6 months. Initially, the lesion was slowly progressive in size without any associated symptoms; therefore, no medical consultation was sought by her. There was no significant past medical or surgical history. On examination of lesion, there was an erythematous patch of size approximately

2 cm × 2 cm slightly elevated from the skin surface with scaly appearance [Figure 1a] and extremely tender to touch with no other sign of inflammation. Rest of the breast and ipsilateral axilla were absolutely normal.

Initial impression was of a Paget's or psoriatic lesion of the breast. Wedge biopsy and dermatologist opinion was taken in view of provisional diagnosis. The histopathology report came out as Bowen's disease and as a definitive treatment wide local excision of the lesion was done [Figures 1b and 2a]. Histopathological examination (HPE) [Figure 2b] was consistent with Bowen's disease (SCC *in situ*). On regular follow-up for the last 6 months, the patient remains symptom free.

## Discussion

Bowen's disease is an intraepidermal SCC *in situ*.<sup>[3]</sup> Bowen disease was first described in the medical literature by a physician named JT Bowen in 1912. The patient usually presents with slowly enlarging, sharply demarcated erythematous plaque with hyperkeratosis, scaling, and itching. The first reported case was 51-year-old woman who had eczematous-type change of the nipple for a year's duration<sup>[1]</sup> and our case is also in the same age group; however, all other reported cases were postmenopausal women ranging in age from 69 to 84 years.<sup>[4]</sup> Pathologically,

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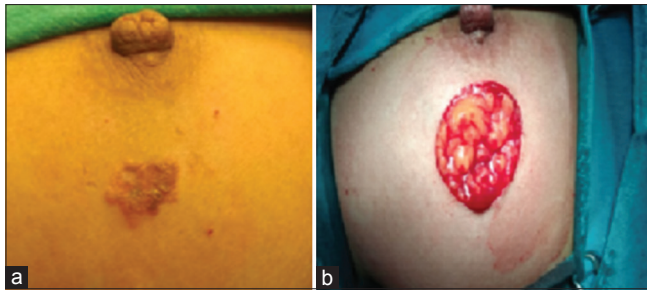


Figure 1: (a) The lesion in the breast (b) postwide excision of lesion

the characteristic features are full-thickness epidermal atypical with distorted architecture, abnormal mitoses, and dyskeratosis that does not penetrate into the dermis.<sup>[3]</sup> Wedge biopsy is necessary for diagnosis and to rule out dermal invasion.

There is no specific, definitive treatment for Bowen's disease. Several different therapies may be used, all of which have excellent success rates. The specific treatment for an individual case depends on numerous factors, such as the site of the body affected and the size, thickness, and number of the lesion (s). A wide variety of treatment options exist for individuals with Bowen's disease including topical chemotherapy, cryotherapy, curettage, photodynamic therapy, and surgery.<sup>[4]</sup> The response to a particular therapy may vary from person to person. Three percent of cases can progress to invasive form.<sup>[5]</sup> A treatment plan for Bowen's disease should be tailored to a patient based on what is best for his or her individual case. In our case, we opted for a wide local excision.

## Conclusion

Bowen's disease of nipple is a very rare entity. The risk of Bowen's disease to progress into invasive SCC is reported to be approximately 3%. This progression has been linked to the altered immune status of the patient. A wide variety of treatment options exist for individuals with Bowen's disease, and almost, all modalities have a same success rate.

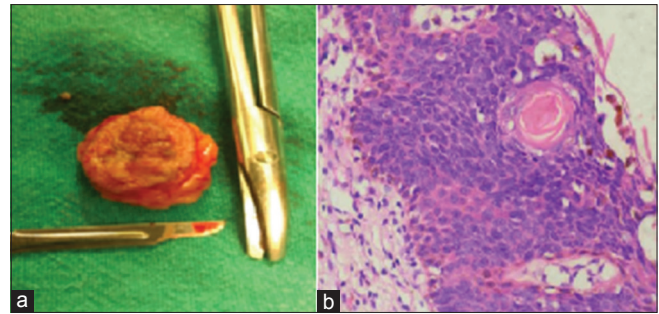


Figure 2: (a) Excised specimen (b) histopathological image showing Bowen's disease (squamous cell carcinoma)

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

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