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Case Report

Giant Bowen's disease of anterior abdominal wall with invasive squamous cell carcinoma-A rare case report

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ABSTRACT

A 65 years old male presented to the out-patient department of Dermatology with complaints of a large verruco-erosive lesion on left anterior abdominal wall for 15 years. A wedge incision biopsy was done which showed features of Bowen's disease. The patient was referred to department of General Surgery where a complete excision was done. The final histopathology report confirmed the diagnosis of Bowen disease with a focus of invasive carcinoma component. This case report is unusual for its clinical presentation, duration and location of the lesion.

1. Introduction

Bowen's disease is a persistent, progressive intraepidermal carcinoma. It is more common in the elderly and is frequently encountered in areas exposed to sunlight. Here, a rare case of long standing Giant Bowen's disease is discussed, which was encountered on anterior abdominal wall, a non-sun-exposed area, and showed focal invasive component.

2. Case Report

A 65-year-old male patient presented to the Dermatology out-patient department with a hyperpigmented erosive plaque over the left abdomen for 15 years that was gradually increasing in size. There was no history of recent increase in size, of bleeding, pus discharge, pruritus or of any past treatment. He did not have any history of chronic exposure to sunlight particularly to the abdominal area. His past medical, personal, family and occupational history were nil significant. On local examination, hyperpigmented plaque of size 11x11 cm was present over the left abdomen, lateral to umbilicus, with well-defined margins. The centre of the plaque was whitish with prominent vasculature. [Figure 1] Clinical differential diagnoses of pigmented basal cell carcinoma, melanoma, Bowen's disease, squamous cell carcinoma, Paget's disease were thought of. Wedge biopsy revealed features of Bowen's disease/Squamous cell carcinoma in situ comprising of irregular acanthosis, full-thickness epidermal dysplasia, dense lichenoid lympho monouclear inflammatory infiltrate in the superficial dermis with no evidence of invasion. Subsequently, wide local excision with split skin grafting was performed. The excised tissue specimen measured 11 x 9 x 1 cm in size. The epidermis showed a well-demarcated, central 10.5 x 8.5 cm, non-ulcerated, hyperpigmented, raised lesion with rough verrucous, irregular surface with whitish/yellowish areas and was firm in consistency.

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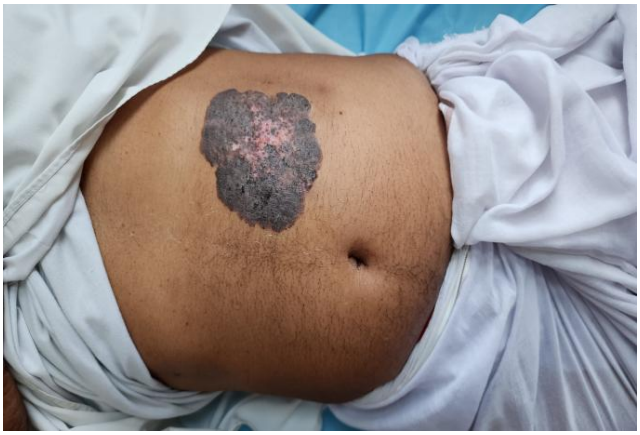

Figure 1: A giant hyperpigmented erosive plaque of Bowen's disease on the anterior abdominal wall.

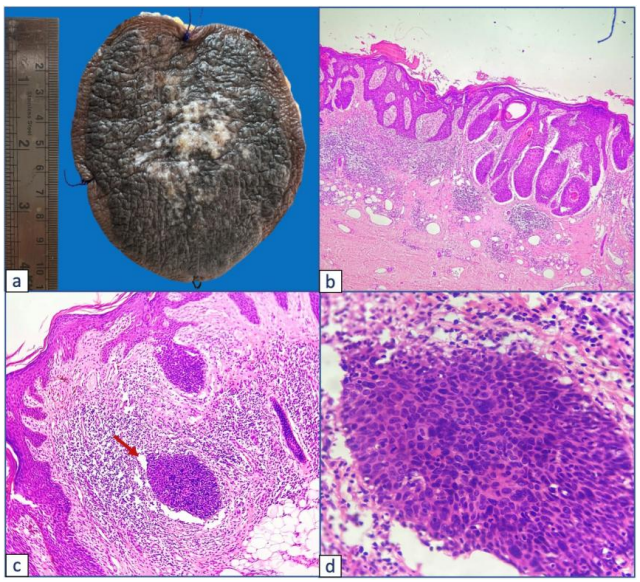

Figure 2: a: Excised skin displaying a slightly raised, 10.5 x 8.5 cm, hyperpigmented lesion with central areas of ulceration; **b:** Initial Skin wedge biopsy showing only Bowen's disease with acanthotic epidermis having full-thickness dysplasia along with band-like dense lympo-plasmacytic response in the superficial dermis (H&E stain, 40×); **c:** Excised specimen- Red arrow highlighting the focus of invasion (H&E stain, 40×); **d:** Higher magnification of the invasive focus showing cluster of hyperchromatic and pleomorphic tumor cells (H&E stain, 400×).

The cut surface showed thickened epidermis of 0.5 to 0.8 cm. The margins were 0.5 cm all around. [Figure 2a] Microscopic examination showed similar features of hyperkeratosis, parakeratosis, irregular acanthosis, thickened elongated rete ridges and full-thickness epidermal dysplasia. The keratinocytes displayed mild to moderate nuclear atypia, loss of maturation and polarity, dyskeratosis and frequent mitoses. [Figure 2b] A single focal area showed microinvasion and it was reported as Invasive squamous cell carcinoma arising on a background of Bowen's disease [Figure 2c,d]. All the surgical margins were free from tumor. The patient's post-operative recovery was uneventful and the patient was symptom-free at annual follow-up.

3. Discussion

Historically, Bowen's disease was described for the first time by John Templeton Bowen, from Boston, in 1912, and he called it as "chronic atypical epithelial proliferation"[1] Demographics-wise, Bowen's disease typically occurs in individuals above 60 years of age and males and females are affected more or less equally.[2] Some of the studies have revealed a slight female preponderance.[3] Kossard and Rosen[4] studied 1001 patients with Bowen's disease and found head and neck (44%) as the most common site followed by lower extremity (29.8%), upper extremity (19.8%), and trunk in (6.5%) cases. In Caucasians, the most commonly affected sites are sun-exposed areas, whereas in Japanese or oriental population, truncal lesions are more common and account for 53%.[2] Our patient being from India/Asia, also presented with a truncal lesion.

Some of the unusual sites for Bowen's disease are ventral aspects of palms, and till date nearly 20 such cases have been reported.[5] Other rare sites are periungual and nipple area.

Duration wise, Bowen's disease lesions are usually slow to grow. It can take anywhere between 2 to 40 years for the full expression of this premalignant condition, favoring the slow and lateral spread in an erratic manner.[6,7] In our case, there was a similar long history of 15 years.

At presentation the lesions are usually solitary, whereas, multiple lesions are seen in 10%–20% of the affected individuals. In case of multicentric Bowen's disease, immunosuppression and arsenicosis should be considered.[6] Some (2%) of the Bowen's disease lesions can be pigmented. Caca et al[8] have reported a giant Bowen's disease of 9 cm diameter, on the cheek of a 85 year old woman. Our case too is of a "Giant Bowen's disease" as it was 10.5 cm in diameter. However, the term "giant" refers only to the clinical manifestation of the lesion, and is not a variant or distinctive form of Bowen's disease.

When dimension exceeds more than 2 cm, it is called a "large Bowen's Disease" and when it exceeds 3 cm it is referred to as "extensive Bowen's Disease".[8]

Bowen's disease has a 3%–5% risk of developing into invasive squamous cell carcinoma[9] as was seen in our case with presence of a focal superficial invasive component.

The risk of invasive carcinoma is estimated to be higher for genital Bowen disease or erythroplasia of Queyrat and is at 10%.[10] The treatment for Bowen's disease varies from topical agents to surgical methods and depends upon various factors such as age, anatomic site, size of the lesion, immune status, multifocality, etc.

The rate of recurrence differs from 6.3% up to 21%–28% (follow up 1 to 5 years) due to different body sites, viral etiology, large wound defects and lesion size.[9] However, a 2017 study suggested that the recurrence rate could be much higher, as 16.3% of 566 cases of biopsy-proven Bowen's disease were found to have squamous cell carcinoma when treated surgically.[11] If there is any involvement of pilosebaceous units by atypical epithelium, it has to be included in the report as it can lead to failure of treatment when superficial destructive modalities are used.

4. Conclusion

'Giant' Bowen's disease can occur on abdominal wall skin and should be suspected in long standing verruco-erosive lesions in elderly males. Wedge biopsy can miss focal invasive carcinoma component and, hence, wide local excision for larger lesions of longer duration is advisable. Extensive sampling in histopathology is essential to look for features of invasive squamous cell carcinoma. Early recognition and treatment of Bowen's disease is important to prevent its progression into the more ominous invasive squamous cell carcinoma.

5. Declaration of Patient Consent

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

6. Source of Funding

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7. Conflicts of Interest

There are no conflicts of interest

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