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CASE REPORT

Bowen's Disease on the Anterior Abdominal Wall – A Case Report

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ABSTRACT

Bowen's disease is a squamous cell carcinoma in situ described in 1912 by John T. Bowen. It occurs predominantly in older individuals mainly on sun exposed areas. It affects both skin and mucous membranes and has the potential to progress into invasive squamous cell carcinoma. We report a case of Bowen's disease on the lower anterior abdominal wall in a 68 year old female which was managed by wide excision and primary closure.

Key Words: Bowen's disease, Carcinoma in situ.

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Introduction

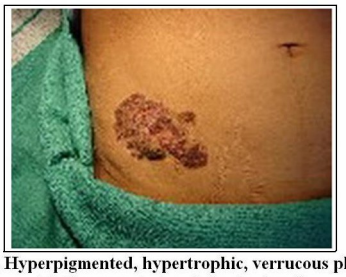
Bowen's disease is a squamous cell carcinoma in situ described in 1912 by John T. Bowen[1]. It affects both skin and mucous membranes and has the potential to progress into invasive squamous cell carcinoma[2]. It occurs predominantly in older individuals mainly on sun exposed areas.

We report a case of Bowen's disease on the lower anterior abdominal wall in a 68 year old woman.

Case Report

A 68 year old woman presented to the hospital with a blackish raised lesion on the lower anterior abdominal wall of ten years duration. The lesion appeared initially as an asymptomatic small plaque, which gradually increased in size. There was no history of trauma or exposure to radiation. There was no history of ingestion of compounds containing arsenic.

On examination, the patient had a well defined hyperpigmented, hypertrophic, verrucous plaque of 7cm x 4 cm size on the right lower anterior abdominal wall [Table/Fig 1]. The plaque was not attached to the deeper structures. There was no regional lymphadenopathy. Her general physical examination and systemic examination revealed no abnormalities.

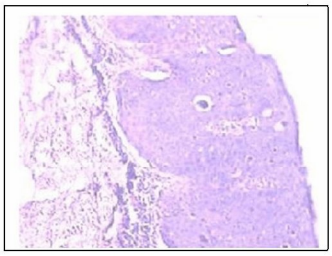


(Table/Fig 1) Hyperpigmented, hypertrophic, verrucous plaque on the right lower anterior abdominal wall.

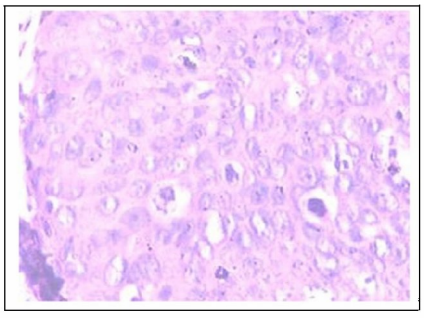
An edge biopsy of the lesion was performed and on histopathological examination, epidermis showed loss of polarity of nuclei with pleomorphism and atypical mitosis [Table/Fig 2]. Superficial dermis showed chronic inflammatory infiltrate, features suggestive of Squamous cell carcinoma in situ.

Wide excision of the plaque with primary closure was done under general anaesthesia. The histopathological examination of the excised specimen, stained with Haematoxylin and eosin stain, showed epidermis composed of large pleomorphic cells with hyperchromatic nuclei and scanty cytoplasm. The cells in the epidermis lie in complete disorder resulting in a "wind blown"appearance. Few of these cells showed atypical mitotic figures and dyskeratosis [Table/Fig 3]. Basement membrane was intact. The upper dermis showed a moderate amount of chronic inflammatory infiltrate. The features were consistent with Bowen's disease.

The postoperative period was uneventful. After 6 months of follow up patient was asymptomatic.



(Table/Fig 2) Microphotograph showing the epidermis with loss of polarity of nuclei with pleomorphism and dermis with chronic inflammatory infiltrate (hematoxylin and eosin stain; magnification X100).



(Table/Fig 3) Microphotograph showing epidermis with large pleomorphic cells, atypical mitosis and dyskeratosis (hematoxyline and eosin stain; magnification X 400).

Discussion

Bowen's disease is a squamous cell carcinoma in situ with potential for significant lateral spread. The exact incidence of Bowen's disease is unknown, but in one population study from Hawaii, the incidence was estimated at 142 per 1, 00,000 persons[3].

It may occur at any age in adults, but it is rarely seen in individuals before the age of 30 years. The disease is said to occur with an equal incidence in men and women, although most studies report a slight preponderance in women [4]. In a study done by Kossard S and Rosen R, it was found that out of 1001 cases of Bowen's disease, 65 patients had it on the torso, out of which three cases of Bowen's disease has been reported on the abdomen [4].

A number of factors have been implicated in the etiology of Bowen's disease, including sun exposure[5] , arsenic exposure[6], ionizing radiation, and certain types of Human Papilloma Virus [7]. Infection with Human Papilloma Virus (HPV) has been implicated in causing certain subtypes of Bowen's disease. HPV 16 has been detected in many cases of anogenital and in some cases of finger and periungual Bowen's disease [8].

Bowen's disease typically presents as a discrete, slowly enlarging, erythematous plaque with well-demarcated border. Hyperkeratotic and verrucous surface changes may be seen, and a pigmented variant of Bowen's disease has been reported in less than 2 percent of cases [9]. Ulceration is usually a sign of development of invasive carcinoma and may be delayed for many years after the appearance of intraepidermal changes.

Histopathologically it is a In situ Squamous cell carcinoma which involves the full thickness of epidermis. The keratinocytes show loss of polarity, atypia and mitosis and the cells lie in complete disorder, resulting in a "wind-blown" appearance and the basement membrane remains intact [10].Clinically, Bowen's disease must be differentiated from superficial basal cell carcinoma, psoriasis, lichen planus, sebrorrheic keratosis & superficial spreading melanoma. The histopathological differential diagnosis includes Paget's disease, melanoma, and pseudoepitheliomatous hyperplasia [11].

The risk of Bowen's disease progressing to invasive Squamous cell Carcinoma has been estimated to be approximately 5 percent [2].
The treatment modalities include excision, Mohs micrographic surgery, electrodessication and curettage, cryosurgery, topical chemotherapy with Fluorouracil, laser therapy & radiotherapy [12]. Mohs micrographic

surgery is an excellent modality of treatment for larger lesions or lesions in those areas where tissue sparing is vital [13].

A failure to recognize Bowen's disease or to perform a biopsy in patients suspected of having Bowen's disease leads to delay in treatment. Surgical excision is generally regarded as the treatment of choice. Overall it has a good prognosis.

We report this case for its rarity and its unusual site of involvement.

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