ORIGINAL RESEARCH PAPER
Volume-8 | Issue-9 | September - 2019 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

BOWEN'S DISEASE ARISING OVER A SCAR OF BCG VACCINATION- A RARE CASE REPORT

Dermatology

Avinash Pravin Junior Resident Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College& Hospital, Bharath University.

Ojas Dipak Kulkarni Junior Resident Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College& Hospital, Bharath University.

Jayakar Thomas* H.O.D, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College& Hospital, Bharath University. *Corresponding Author

ABSTRACT

Bowen's Disease is a form of intraepidermal (in situ) Squamous Cell Carcinoma, first described by John Bowen in 1912[1]. We report a rare case of a 72 year old male, with a solitary, pigmented, raised, crusted lesion over his left shoulder on his BCG scar[2].

KEYWORDS

INTRODUCTION:

Bowen's disease is a form of intraepidermal (in situ) SCC characterized by a persistent, non−elevated, red, scaly or crusted plaque with a small potential for invasive malignancy. Bowen's disease can occur at any age in adults but it is rare in those under the age of 30 years and more common in patients over the age of 60 years. It occurs more frequently in females with over 70-80% cases[3] This condition is much more common in white population. In dark skinned individuals, covered sites are more involved. It has a favorable prognosis with only 3% of cutaneous Bowen's disease and 10% of genital lesions advancing to invasive SCC and metastasis is very rare[4].

CASE REPORT:

A 72 year old male came with chief complaints of a solitary, pigmented, raised, crusted plaque over the left shoulder for the past 3 years. No history of pain or discharge from the lesion. No history of trauma or topical application prior to developing this lesion. On examination a solitary, pigmented, verrucous plaque measuring 8x6 cm in diameter was present over his left shoulder on his BCG scar[2] as mentioned in [FIGURE 1]. The lesion was non-tender on palpation. A provisional diagnosis of Lupus Vulgaris was given on the clinical appearance of the lesion. The patient was therefore advised a Mantoux test. The Mantoux test was positive and showed a 20mm reaction [FIGURE 2]. For further diagnostic evaluation, the lesion was biopsied for histopathological study. The microscopic examination of specimen under low power view [FIGURE 3A] showed, marked acanthosis with irregularly elongated rete ridges to an extent that the dermal papillae are reduced to thin strands. There is presence of perivascular lymphocytic infiltration in the upper dermis. The high power view [FIGURE 3B] showed, an architectural disarray of atypical cells, with vacuolization showing a characteristic 'windblown' appearance. The histopathological analysis confirmed the diagnosis of Bowen's disease.

DISCUSSION:

Bowen's disease is an intraepithelial squamous cell carcinoma first described by John Bowen in 1912[1]. It usually occurs as a solitary plaque which is often asymptomatic but multiple lesions can occur in 10- 20% of the cases[5]. In most cases the cause is not known, but postulated causes are, chronic UV radiation[6], arsenic exposure[7], HPV (types 8, 16, 18, 39, 51) are associated with genital Bowen's disease, while types 15, 16 are linked to Bowen's disease of extremities[8]. Other causes include trauma, chromic irritation, X-ray radiation and therapeutic immunosuppression in organ transplantations. It presents clinically as a single lesion in 2/3rds of cases, Lesions may appear on sun exposed or covered sites. The head and neck are the most commonly affected anatomic locations followed by limbs[9]. Lesions are well circumscribed, round to oval, pink to salmon red to even dark red. The well established clinical variants include pigmented, subungual/periungual, palmar, genital and perianal and verrucous Bowen's disease[5], of which the pigmented variety is rare. When it arises over the glans penis it is referred to as 'Erythroplasia of Queyrat'.

Bowen's disease must be differentiated from Seborrheic keratosis, Nonmelanoma Skin Cancer, Solitary Basal Cell Carcinoma, Actinic keratosis, Bowenoid papulosis, Paget's disease, inflammatory dermatosis like- Psoriasis, Lichen Simplex Chronicus and Discoid eczemas. Histopathology of Bowen's disease shows full thickness epidermal dysplasia with vacuolization, atypical mitosis, dyskeratotic cells and multinucleated cells, with intact basement membrane. Atypical keratinocytes have loss of polarity which gives the characteristic 'windblown' appearance. Treatment modalities for Bowen's disease include 5-Fluorouracil topically under occlusion or intralesional. Imiquimod 5% cream applied for 3 to 7 days per week for 12 weeks has shown significant improvement. Photodynamic therapy has shown promising results in cases of multiple lesions. Simple excision with conventional 4mm margin is a preferred treatment for smaller lesions not in problematic areas such as face and digits. Moh's micrographic surgery is an excellent technique for large and recurrent lesions. Ablative procedures like curettage, electrodessication, cryotherapy and lasers like $CO_2$and Nd:YAG also may be used[10]

CONCLUSION:

Bowen's disease occurring over a BCG scar is a rare occurrence in background of a positive Mantoux test and a clinical dilemma of Lupus Vulgaris. But as the histological features were consistent with Bowen's disease the diagnosis was concretized. This case was therefore reported for its rarity.

ACKNOWLEDGEMENT: None

CONFLICT OF INTEREST:

The authors declare that there is no conflict of interest.

FIGURES:

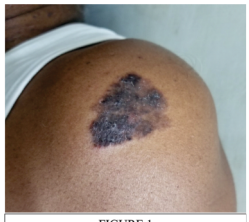
FIGURE 1

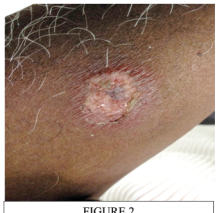
FIGURE 2

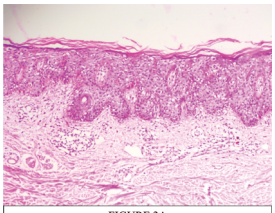
FIGURE 3A

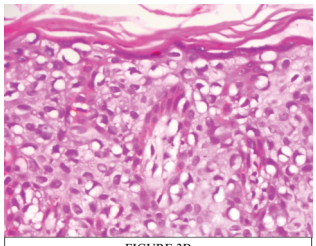

FIGURE 3B

LEGENDS TO FIGURES:

FIGURE 1: A solitary, pigmented, verrucous plaque measuring 8x6 cm in diameter was present over the left shoulder on BCG scar of the patient.

FIGURE 2: The Mantoux test was positive and showed a 20mm reaction.

FIGURE 3A: Marked acanthosis with irregularly elongated rete ridges to an extent that the dermal papillae are reduced to thin strands.

FIGURE 3B: An architectural disarray of atypical cells, with vacuolization showing a characteristic 'windblown' appearance.

REFERENCES:

1] Schwartz RA. Premalignant keratinocytic neoplasms. J Am Acad Dematol. 1996;35:223-42.
2] Miyakura T, Yamamoto T, Tsuboi R. Case of Bowen's disease occurring in an old Bacille Calmette–Guerin vaccination site. The Journal of dermatology. 2007 Jun;34(6):416-7.
3] Cox NH. Body site distribution of Bowen's disease. Br J Dermatol 1994;130:714-16. [PUBMED]
4] Kao GF. Carcinoma arising in Bowen's disease. Arch Dermatol, 1986;122:1124-6
5] Cox NH, Eedy DJ, Morton CA. Guidelines for management of Bowen's disease: 2006 update. Br J Dermatol 2007;156:11-21. [PUBMED]
6] Campbell C, Quinn AG, Ro YS, et al. P53 mutations are common and earlyu events that precede tumour invasion in squamous cell neoplasia of the skin. J Invest Dermatol. 1993;100:746-8.
7] Yeh S. Skin cancer in chronic arsenicism. Hum pathol. 1973;4:469-85.
8] Ikenberg H, Gissmann L, Gross G, et al. Human papillomavirus type-16-related DNA in genital Bowen's disease and in Bowenoid papulosis. Int J Cancer. 1983;32:563-5.
9] Kossard S, Rosen R. Cutaneous Bowen's disease. An analysis of 1001 cases according to age, sex and site. J Am Acad Dermatol. 1992;27:406-10.
10] Arlettee JP. Treatment of Bowen's disease and Erythroplasia of Queyrat. Br J Dermatol. 2003;149 Suppl 66:43-7