JMSCR Volume||03||Issue||02||Page 4500-4503||February 2015

www.jmscr.igmpublication.org Impact Factor 3.79
ISSN (e)-2347-176x

IGM Publication Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Multifocal Bowen's Disease Arising from Psoriatic Lesions – A Rare Case Report

Authors
Priya Banthavi Sivasubramanian[1], Balasubramani Arumugam[2]
Manimegalai Singaram[3]
[1]Associate Professor, Department of Pathology, Chennai Medical College Hospital and Research Centre, Irungalur, Trichy-621 105, Tamil Nadu, INDIA
[2] Consultant Dermatologist, Banthavi skin care Clinic, Trichy
[3]Postgraduate, Department of Pathology, Chennai Medical College Hospital and Research Centre, Irungalur, Trichy-621 105, Tamil Nadu, India
Email: *priyabanthavi@yahoo.co.in*

ABSTRACT
Psoriasis is a chronic, multicentric skin disease characterized by itchy, scaly patches and plaques while Bowen's disease usually presents as a solitary, non-itchy plaque involving the head, neck or legs.
Here we report the case of a sixty year-old man, a known patient of generalized psoriasis vulgaris on irregular treatment, now presenting with ulceration, pigmentation and pedunculation of the lesions on the torso and thighs. The change in the nature of the lesions lead to a biopsy which revealed Multifocal Squamous cell carcinoma-in-situ/Bowen's disease. The skin lesions were subsequently completely surgically excised and skin grafting was done.
This case is rare since it reveals that premalignant, multicentric Bowen's disease can develop in improperly treated Psoriatic lesions and the possibility of Arsenic being the culprit for the premalignant change in the psoriatic lesions. This report also emphasizes the need for histopathological examination of the lesions which change their clinical presentation, to help diagnosis and treat such carcinoma-in situ changes at an early stage and thereby avoid the development of frank malignancy.
Keywords: *Bowen's disease (BD), Psoriasis, multifocal Squamous cell carcinoma- in- situ.*

INTRODUCTION

Psoriasis is a chronic skin disease presenting mostly in adults as itchy patches of thick, sore skin with silvery-white scales on the elbows, knees, scalp, back, face, palms and feet.

Bowen's disease (BD) is a form of intraepidermal squamous cell carcinoma-in-situ which may develop into a invasive malignancy[1]. This premalignant condition may affect both skin and the mucosa, usually as a solitary lesion mostly on sun-exposed areas such as the head and neck[2]. BD

does not usually occur as a pigmented lesion or at multiple sites. Studies show that BD at multiple sites is seen to occur in only 10–20% of patients[1,2]. Studies also show that Bowen's disease and other primary cutaneous malignancies are uncommon in patients with psoriasis[3].

We report a rare case of generalized psoriasis vulgaris in a patient who took both allopathic and non-allopathic treatment and subsequently had few of the skin lesions turning pigmented and pedunculated which when biopsied was found to be Bowen's disease (Squamous cell carcinoma-in-situ).

CASE HISTORY

A sixty year old male presented to the dermatology clinic with complaints of sudden change in colour, ulceration and tenderness over the itchy skin lesions on the chest and thighs of one year duration. The patient was a known case of generalized psoriasis vulgaris on irregular treatment for the past 10 years. He gives a history of trying several treatment modalities including Homoeopathy and Ayurveda but was unable to furnish the exact composition of the drugs taken.

On clinical examination he had multiple, hyperpigmented blackish brown to whitish plaques with irregular and elevated margins about 1 to 5 cms. dia. some of which were covered with thin scales. The lesions were scattered over the legs, chest, back and hip. (Fig.1,2) Few of the lesions showed surface ulceration and some were pigmented, pedunculated with mild tenderness. Hemogram, blood glucose levels, renal and liver functions were normal.

A differential diagnosis of Psoriasis vulgaris, Seborrhoeic keratosis and Actinic keratosis was made clinically. A punch biopsy from lower back lesion was taken for histopathological examination.

The skin biopsy showed epidermis with psoriasiform acanthosis and atypia in all the layers with intact basal lamina. The keratinocytes were enlarged with hyperchromatic pleomorphic nuclei. The dermis had lymphocytes. (Fig3,4)

The histopathological diagnosis was of Psoriatic dermatitis with Squamous cell carcinoma in-situ changes (Bowen’s disease).

DISCUSSION

Bowen's disease (BD) was described by John Bowen (1912) as an intraepithelial squamous cell carcinoma which usually affects both skin and the mucosa and can progress to invasive squamous cell carcinoma, out of which one-third may metastasize unless adequately treated[4] . The lesion of BD usually is a solitary plaque and its affliction at multiple sites has been recorded only in 10-20% of cases [1,2.]. This case is being reported since it is a multifocal Bowen’s disease following psoriasis which is a rare entity.

The sites of occurrence of BD have been vastly documented and it is said that this disease has a predilection for the sun-exposed areas (particularly face and leg) in older individuals who have fair skin [5]. In our case, the lesions were seen mostly in non-sun exposed areas as observed in an earlier study by Yamaoka, N. Ikoma, M. Kato et al , wherein 73% of the lesions were present on the skin not exposed to sun[6].

Few Indian studies suggest that multicentric BD can occur in individuals exposed to arsenic following non-allopathic medications including homeopathy[7,8] and interestingly the treatment history of this patient also gives rise to the same suspicion that Arsenic in any of the non-allopathic drugs he had taken over the years for psoriasis might have been the culprit behind the premalignant change in the psoriatic lesions.

Treatment by surgical excision is considered the treatment of choice for most lesions of Bowen's disease, if the size and location of the lesion permit, cure rate being 95% [9]. Our patient was thereby referred for surgical excision of all the lesions and the tissues were subjected to histopathological examination and reported to have highly dysplastic squamous epithelial cells extending full thickness intraepidermally with no breach in basement membrane. The confirmatory report was Multiple foci of Squamous cell carcinoma in-situ (Bowen's disease) arising in a background of psoriatic dermatitis.

The patient was followed for a year and no recurrence of lesion has been observed as yet.

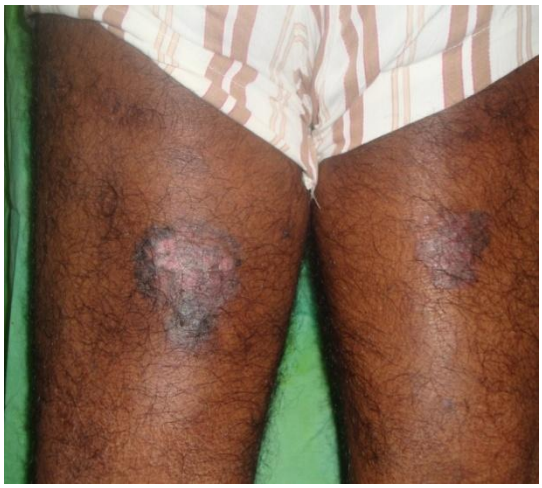

Fig-1: The irregular plaques on both thighs with hyper pigmented blackish brown to whitish plaques and irregular and elevated margins ranging between 1 to 5 cms in diameter

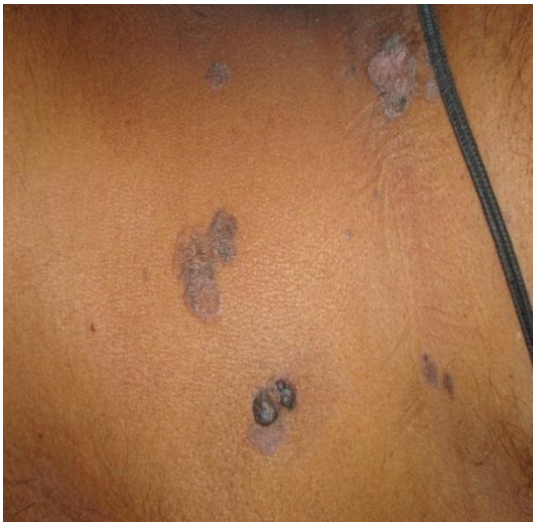

Fig:-2 The chest wall had few which appeared pedunculated and black lesions.

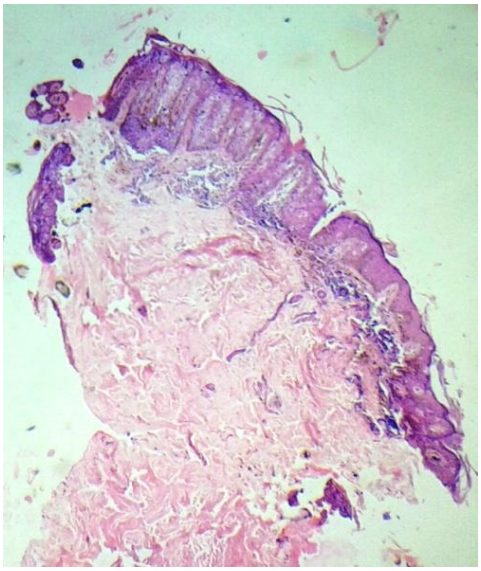

Fig 3: Histopathology of the punch biopsy from the plaque. Low power view showing the hyperkeratosis, irregular acanthosis and full thickness dysplasia of the epidermis (H and E, X 4)

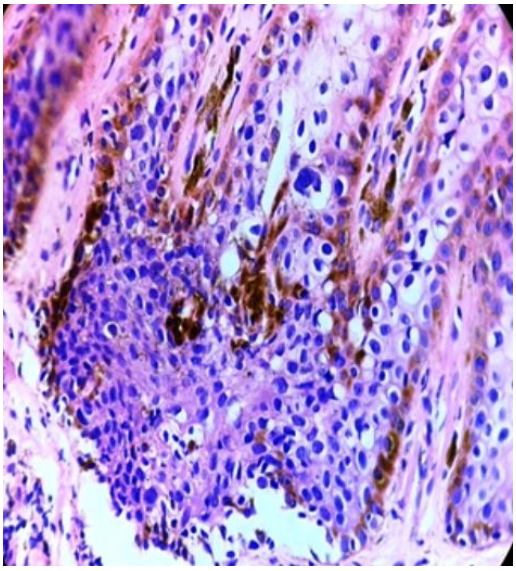

Fig4:-Close up view of the same showing epidermis with cellular hyperchromatia, atypia with intact basal lamina (H and E, X 40)

REFERENCES

1. Quinn AG and Perkins W. Non melanoma skin cancer and other epidermal skin tumours," In : Rook's Textbook of Dermatology, Burns DA, Breathnach SM, Cox NH, and Griffiths EMC, Eds., Singapore : Wiley-Blackwell, 2010: 8th edition vol. 52, pp. 32–34.
2. Duncan KO, Geisse J K, and Leffell DJ. "Epithelial Precancerous lesions," In: Fitzpatrick's Dermatology in General Medicine, Wolff K, Goldsmith LA, Katz SI, Gilchrist BA, Paller AS, and Lefell DJ, Eds., New Delhi, India: McGraw Hill, 2008 : 7th edition, pp. 1021–1023.
3. Kolbusz, RV, Fretzin DF. Bowen's disease of the umbilicus simulating psoriasis vulgaris. Cutis 1988: 42(4): 321-322
4. Karynne O. Epithelial precancerous lesions. In: Fitzpatrick's Dermatology in General medicine. In: Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, editors. New York: Mc Graw Hill: 7th edition; 2008. p.1021-3.
5. Cox NH. Body distribution of Bowen's disease. Br J Dermatol 1994: 130:714-6.
6. Yamaoka H, Ikoma N, Kato M et al. "Multiple Bowen's disease in a patient with a history of possible arsenic exposure: a case report," Tokai Journal of Experimental and Clinical Medicine, 2011:36: 53–57.
7. Chakraborti D, Mukherjee SC, Saha KC., Chowdhury UK, Rahman MM, and Sengupta MK. "Arsenic toxicity from homeopathic treatment," Journal of Toxicology, 2003 : vol. 41, no. 7: 963–67.
8. Khandpur S, Malhotra AK, Bhatia V et al. "Chronic arsenic toxicity from Ayurvedic medicines", International Journal of Dermatology, 2008: vol. 47, no. 6 : 618–621,
9. Cox NH, Eedy DJ and Morton CA. Guidelines for management of Bowen's disease: 2006 update. Br J Dermatol 2007: 156: 11-21.