Bowen's Disease in Kashmir - A Pilot Study

Shabir A Bhat[1], Sheikh Manzoor[2], Syed Mubashir[3], Farah Sameem[2], Syed Shahab Ud Din Bukhari[2]

ABSTRACT

Introduction: Bowen's disease (BD) is an in situ squamous cell carcinoma (SCC) which was first described in 1912 by JT Bowen. Clinically a typical BD is a slowly enlarging erythematous patch or plaque which is well demarcated and has a scaling or crusted surface. In some cases it can be pigmented or verrucous. Study aimed to compare wide surgical excision versus electrocautery as a treatment modality for BD.

Material and Methods: Patients with a clinical suspicion of Bowen's disease were included in the study. Histopathological examination was done after a punch biopsy or edge biopsy depending on an individual case. Patients were divided in two groups, In Group 1 Surgical excision was performed and in Group 2 electric cauterisation was done. All the patients whose biopsy proved to be consistent with Bowen's disease were kept on follow up at weekly intervals for one month and then monthly for any sign of recurrence.

Results: This study included 30 patients 22 females (73.33%) and 8 males (26.66%). The age range of the patients was 40-70 years. The disease duration in these patients varied from 1to 3 years. Half of the patients had used topical treatments for more than three to six months. The disease in these patients had progressed and they had also developed pain and pruritus. Patients were divided in two groups, In Group 1 Surgical excision was performed (15 patients) and in Group 2 patients electric cauterisation was done. The anteromedial aspect of the thigh, anterior abdomen followed by legs were the most common sites affected respectively. All the lesions of BD were overlying the lesions of Erythema ab Igne from Kangri use. In Group 2 three patients showed recurrence of lesion during six months.

Conclusion: Our study demonstrated very good results with surgical excision as compared to cauterisation, which resulted in recurrence in some cases, especially with lesions on the thighs and abdomen.

Keywords: Bowen's Disease, Squamous Cell Carcinoma

INTRODUCTION

Bowen's disease (BD) is an in situ squamous cell carcinoma (SCC) which was first described in 1912 by JT Bowen. Clinically a typical BD is a slowly enlarging erythematous patch or plaque which is well demarcated and has a scaling or crusted surface. In some cases it can be pigmented or verrucous. It is commonly located on the lower limbs and on the head and neck. But BD is also seen in subungual or periungual, palmar, genital and perianal areas. Usually BD is a solitary lesion, but in 10% to 20% of cases, it occurs at multiple sites[1,2]. 3% to 5% of extragenital lesions and about 10% of genital lesions may progress into an invasive carcinoma [3,4]. In the Caucasian population, BD is quite commonly seen, with an incidence of 1.42 per 1000 in some populations[5].

Several etiological factors of BD have been reported, such as irradiation (ultraviolet irradiation, radiotherapy, photochemotherapy), carcinogens (eg, arsenic), immunosuppression (eg, after organ transplantation, AIDS), viral (strong association of perianal and genital lesions with HPV; 47% of acral and 24% of nonacral extragenital BD contain HPV genome) and some others like chronic injury or dermatoses[2,6]. There are various surgical and non-surgical treatment modalities for BD. Excision, curettage, and Mohs micrographic surgery[7] are the surgical options available. Nonsurgical treatments include topical 5-fluorouracil (5-FU), topical Imiquimod, cryotherapy, photodynamic therapy (PDT), ablative laser, and radiotherapy. Observation without active treatment is also a reasonable option in select cases[8,9]. The British Association of Dermatologists (BAD) in the UK[8] and the Cancer Council in Australia[10] have each produced national guidelines to aid their respective clinicians' therapy choices for the treatment of BD. Both guidelines allow for much clinical interpretation because there is no single modality that can be regarded as optimum for BD management[9]. Patient's age, body site involved, number and size of lesions, presence of adnexal extension, failure of previous treatments, cosmesis, cost, local availability, and patient preference are the various factors which may guide the decision for treatment options[8,9]. Very few prospective trials have been conducted for BD treatment and there are very few head-to-head comparisons of the various treatment modalities. Due to these reasons, review of literature of this ailment does not provide conclusive results about the comparative effectiveness of various treatment modalities[6,11]. Bowen's disease occurs mainly in females (70-85% of cases), especially after the age of 30 years. 60-85% of the

[1]Consultant, Department of Dermatologist, Department of Health, [2]Professor & Head, Department of Dermatology, Venereology & Leprosy, SKIMS Medical College, [3]Lecturer, Department of Dermatology, Venereology & Leprosy, Government Medical College, [4]Assistant Professor, Department of Dermatology, Venereology & Leprosy, SKIMS Medical College, [5]Senior Resident Department of Dermatology, Venereology & Leprosy, SKIMS Medical College, Srinagar, J&K.

Corresponding author: Dr Syed Shahab Ud Din Bukhari. Senior Resident Department of Dermatology, Venereology and Leprosy. SKIMS Medical College Srinagar J&K.

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patients have lesions on the lower legs, usually in previously or presently sun exposed areas of the skin[9,12].

Study aimed to compare wide surgical excision versus electrocautery as a treatment modality for BD.

MATERIAL AND METHODS

This prospective hospital based study was conducted on patients attending the Department of Dermatology, STD and Leprosy, of a tertiary care centre over a period of 6 months. After ethical clearance from the institutional ethics committee, 30 patients with a clinical suspicion of Bowen's disease were included in this study after taking a proper informed consent. A detailed history was taken for each patient. A complete cutaneous and systemic examination was done in all cases. Histopathological examination was done after a punch biopsy or edge biopsy depending on an individual case. Patients were divided in two groups, In Group 1 Surgical excision was performed (15 patients) and in Group 2 patients electric cauterisation was done. All the biopsy proven patients were kept on follow up once a week for one month and then once a month for any sign of recurrence. A patient was deemed as cured if there was no sign of renewed disease activity after 1 year of follow up.

STATISTICAL ANALYSIS

Statistical analysis was done using Graph pad statistical software. Descriptive statistics like mean and percentages were used for the analysis.

RESULTS

This study included 30 patients 22 females (73.33%) and 8 males (26.66%). The age range of the patients was 40-70 years. The disease duration in these patients varied from 1to 3 years. Half of the patients had used topical treatments for more than three to six months. The disease in these patients had progressed and they had also developed pain and pruritus. Patients were divided in two groups, In Group 1 Surgical excision was performed (15 patients) and in Group 2 patients electric cauterisation was done. The anteromedial aspect of the thigh, anterior abdomen followed by legs were the most common sites affected respectively. All the lesions of BD were overlying the lesions of Erythema ab Igne from Kangri use. The "Kangri" is a small earthenware bowl of a quaint shaped held in a frame of wicker-work. Erythematous crusted scaly plaque was the commonest presentation[19]. The size of the lesions varied from 1 to 4 cm in the longest diameter. In Group 2 three patients showed recurrence of lesion during six months. The patients have been under follow-up for the past more than one year.

DISCUSSION

Typical presentation of Bowen's disease is a well demarcated, gradually enlarging, erythematous crusted or scaly plaque with an irregular border[22] (figure-1). Most of the patients are over 60 years old, though any age group can be affected, especially after age of 30 years. Bowen's disease occurs predominantly in women (70-85% of cases). 60-85% of the patients have lesions on the lower legs, usually in previously or presently sun exposed areas of the skin[9,12]. Palms and soles are less commonly affected although any site may be affected. It presents as a persistent progressive flat red scaly or crusted plaque, having a malignant potential. Any skin or mucosal surface can be involved.

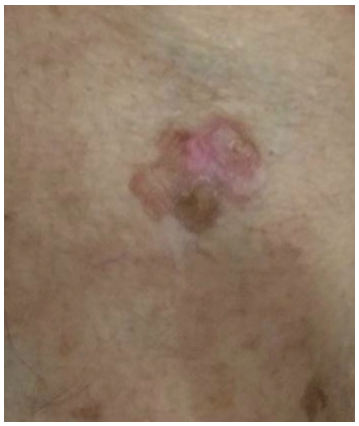

Figure-1: Presentation of Bowen's disease

There is a wide range of therapeutic options available for the treatment of Bowen's disease. Patient's age, body site involved, number and size of lesions, presence of adnexal extension, failure of previous treatments, cosmesis, cost, local availability, and patient preference are the various factors which may guide the decision for treatment options[8,9]. Due to inconsistencies of different treatment regimens used at different centres, their relative comparison for effectiveness is difficult as published data do not fully control for factors such as size and site. A useful modality of treatment, especially in small lesions over the sites which have a delayed healing, perineal lesions, and digital lesions is surgical excision[4,11]. Various studies have demonstrated an early 100% cure rate for surgical excision, as was seen in a clinicopathological study of 47 cases of perianal Bowen's disease excision by Marchesa et al[13]. All therapeutic options have a failure rate of 5-10% except for surgical excision. Direct comparison is limited between different treatment modalities as there are fewer randomized controlled studies with comparable patient subgroups. Our study also demonstrated very good results with surgical excision as compared to cauterisation, which resulted in recurrence in some cases, especially with lesions on the thighs and abdomen.

This study was a preliminary study with a small sample size over a short period of time. Larger controlled studies are required to establish the efficacy of this treatment modality in the treatment of Bowen's disease more conclusively.

CONCLUSION

Our study demonstrated very good results with surgical excision as compared to cauterisation, which resulted in recurrence in some cases, especially with lesions on the thighs and abdomen.

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