

Successful Treatment of Buschke–Löwenstein Tumour by Surgical Excision Alone

A 48-year-old man presented with multiple warts in groin for 1 year, which progressively increased in size. Local examination showed large vegetative growth in perianal area. Full thickness excision of involved skin and lesions was undertaken by electrocautery. Entire wound was left open to heal by secondary intention. Histopathological examination suggested Buschke–Löwenstein tumour. Postoperative follow-up for more than 2 years showed the absence of any recurrence.

KEYWORDS: Buschke–Löwenstein tumour, giant condyloma acuminatum, wide radical excision

INTRODUCTION

Buschke–Löwenstein tumour (BLT) is a slow-growing, large, cauliflower-like tumour of anogenital region, having locally destructive behavior. It was originally described as penile lesion by Buschke in 1896 and Löwenstein in 1925.^[1] BLT is a rare lesion presenting in fifth decade with 2.7:1, male:female ratio. For patients over 50 years, this ratio increases to 3.5:1.

Risk factors include anoreceptive intercourse, HIV infection, and immunosuppression. Although it shows benign histology, it is clinically malignant, with high rate of local recurrence, and rare malignant transformation to squamous cell carcinoma.^[2] Hence, some authors consider BLT as regional variant of verrucous carcinoma, while others consider it to be a separate entity.^[3]

Although it is a benign lesion, its management is challenging due to its large size, deep local invasion, and high recurrence rate. In this study, we report a case of BLT successfully treated by surgical excision alone.

CASE REPORT

A 48-year-old man presented with complaints of multiple warts in groin for 1 year, which progressively increased in size. Lesions were associated with pain, but there was no associated itching. Patient was married and denied any sexual promiscuity. Family members did not have similar complaints.

Local examination showed a large vegetative growth in perianal area. Actively discharging, multiple skin colored to whitish, verrucous plaques were distributed over penile shaft, scrotum, perineum, and bilateral inguinal region [Figure 1].

Full screening for STDs was negative. Examination under anesthesia to exclude involvement of anal canal and rectum was done. Full thickness excision of involved skin and lesions was undertaken by electrocautery. Excision of the largest tumour was done first. Initially, incision was taken all around the tumour to macroscopically clear margins laterally, with 15 number surgical blade. Dissection was then performed till subcutaneous fat with the cautery using spray mode coagulation with 45 watts output. Later the small lesions in the perineal region and on the penis were dissected and excised in the similar way. Dissection on the penis was done using contact mode coagulation with 35 watts output. Electrocautery machine used was Schiller Healthcare India Private limited (Meditom DT-400P). It had rated voltage of 220 VAC (50 HZ), of class I and

Access this article online	
Quick Response Code: 	Website: www.jcasonline.com
	DOI: 10.4103/0974-2077.74496

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had a power consumption 950 VA. Entire wound was left open and allowed to heal by secondary intention [Figures 2 and 3].

Histopathological examination showed hyperplastic stratified squamous epithelium, with marked hyperkeratosis, parakeratosis and florid acanthosis. There was thick stratum corneum with marked papillary proliferation displacing the surrounding tissues. No dysplasia or features suggestive of malignancy were seen. Histopathological diagnosis was BLT. Postoperative follow-up for more than 2 years showed the absence of any recurrence [Figure 4].

DISCUSSION

Giant condyloma acuminata (BLT), a slow-growing, large, cauliflower-like tumour of anogenital region, having locally destructive behavior, has probably a viral etiology (HPV subtypes 6-11 and 13-15).^[4] Histologically,

it differs from other lesions by its thick stratum corneum, marked papillary proliferation, tendency to deep invasion, with displacement of surrounding tissues. Similar features are also seen in verrucous carcinoma; so distinction between verrucous carcinoma and BLT is difficult and hence BLT is often regarded as a variant of verrucous carcinoma.^[3]

However, BLT does not present histological evidence of malignancy, such as infiltration of basement membrane, lymphatic invasion, angioinvasion, and distant metastases. It is also known that BLT can coexist with squamous cell carcinoma in 50% of patients.^[5,6]

There are many problems concerning the management of BLT because of high recurrence rates (up to 70%).^[5] Topical application of podophyllin gives good results on ordinary condyloma acuminatum, but is not recommended in BLT because of lack of results.^[3]



Figure 1: BLT of perineal region, penis, and inguinal region



Figure 2: Perineal, inguinal region after excision of BLT

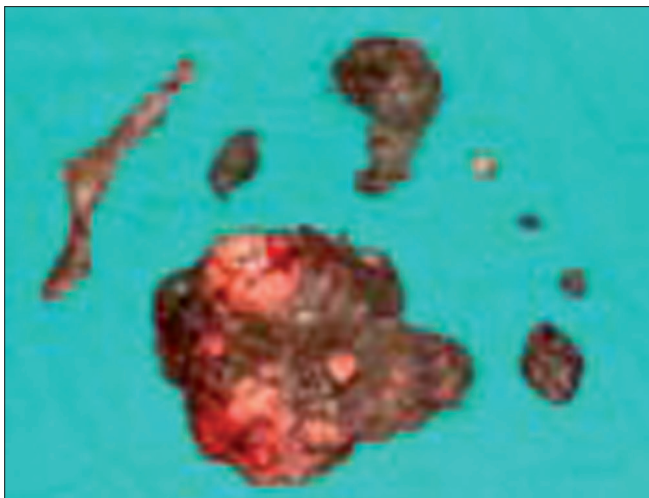


Figure 3: Specimen of BLT, largest measuring 15 × 10 × 8 cm³



Figure 4: No recurrence at follow-up

Role of immunotherapy (preparing autologous vaccine) has been evaluated in treating recurrent or extensive BLT, with good results in small series of patients.^[7] Interferon has been used, via topical, intralesional, or systemic route. Direct intratumoural interferon injection achieved eradication in 45–60% of patients, but with high recurrence rates.^[8]

Use of radiotherapy is controversial, because of risk of anaplastic transformation, extensive appearance of new condylomas after its use, and lack of long-term results.^[9] Systemic chemotherapy is not well defined because of paucity of data. Topical chemotherapy with 5-Fluorouracil gives poor results.^[5]

Surgery remains method of choice to achieve local control of disease, even after recurrence. Conservative treatments (Mohs microsurgery, cryosurgery, and laser resection) do not allow good results in terms of disease control and recurrence. Hence, radical treatment is considered. Radical treatment may be (1) radical local excision, with healing by secondary intention and (2) radical local excision, with eventual skin defect reconstruction by use of Mesh-skin grafts, S-plasty, split-thickness grafts, and other kinds of reconstructions.^[10] In our case, we did radical local excision and allowed healing by secondary intention. We achieved recurrence free period of more than 2 years.

CONCLUSIONS

Optimal treatment for BLT is being debated because of lack of consistent series of patients. Wide radical excision with healing by secondary intention/plastic reconstruction of skin defects seems to be the best

choice. Adjuvant therapies such as radiotherapy and immunotherapy may achieve good results, but their effectiveness is still uncertain.

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Source of Support: Nil, Conflict of Interest: None declared.