



Case Report

Buschke-lowenstein tumour: A case report

Sivakumar S¹, V Siva Subramanian¹, Tony Kuncheria^{1,*}, Sukanya Siva Subramanian¹

¹Dept. of Dermatology, Venereology & Leprosy, Vinayaka Missions Medical College & Hospitals, Karaikal, Puducherry, India



ARTICLE INFO

Article history:

Received 23-08-2020

Accepted 17-09-2020

Available online 03-10-2020

Keywords:

BuschkeLowenstein tumour

Human papillomavirus

Imiquimod

ABSTRACT

The disease, for which the most important treatment method is the surgical excision, differs from normal condyloma acuminatum cases with its high degree of malignancy. The purpose of this paper is to present the case that reached huge dimensions in the perianal region which was treated with wide resection, came to our outpatient department with recurrence and was successfully treated with topical Imiquimod 5 % cream.

© 2020 Published by Innovative Publication. This is an open access article under the CC BY-NC license (<https://creativecommons.org/licenses/by-nc/4.0/>)

1. Introduction

Buschke-Lowenstein tumor, otherwise known as giant condyloma acuminatum, presents as an asymptomatic, papillomatous growth on the genitalia or the perianal area that grows to a large size. Most lesions are 5cm or larger in diameter at the time of presentation. It is the most common sexually transmitted infection of anorectal region. The exact position of Buschke Lowenstein tumor and verrucous carcinoma in the spectrum of benign and malignant lesions is not established. It is regarded as a verrucous low grade well differentiated squamous carcinoma. Origin from HPV infection is likely.¹ Incidence rate in the general population is 0.1%.² Buschke Lowenstein tumor grows larger than typical genital warts and tends to persist for longer. Rarely, invasive squamous cell carcinoma may supervene,³ but metastasis is unlikely. Incubation period of HPV that causes condyloma acuminatum is about 1–6 months. The purpose of this paper is to present a Buschke Lowenstein Tumor case that has reached a huge dimensions covering all perianal region and extending into anal channel that was treated with wide resection followed by topical Imiquimod 5% cream for the fresh lesions post resection. Imiquimod is

an immune response modifier that stimulates innate and adaptive immune pathway resulting in antiviral, anti-tumour and immunoregulatory properties. It is a non-nucleoside heterocyclic amine and induces cytokine production which indirectly produces interferon-gamma and enhancement of cell mediated immunity responsible for viral killing. It is an activator of Toll-Like Receptor.⁴

2. Case Report

18 years old boy came to our Out Patient Department with complaints of multiple dark coloured raised lesions over the anal and peri anal region since 2 months. Associated with discharge and unpleasant odour without previous diseases, and there is history of homosexual relationships present. Patient had a huge mass over the anal orifice 2 months ago for which he underwent wide resection under spinal anesthesia on 9/7/2020 (Figure 1). Patient claimed beginning sexual activity at 17 years old. Serologic screening for HIV, Hepatitis B (HBsAg), hepatitis C (anti-HCV ELISA) and syphilis (VDRL) did not reveal infections and patient had not mentioned any previous sexual diseases.

* Corresponding author.

E-mail address: tonykakka@gmail.com (T. Kuncheria).

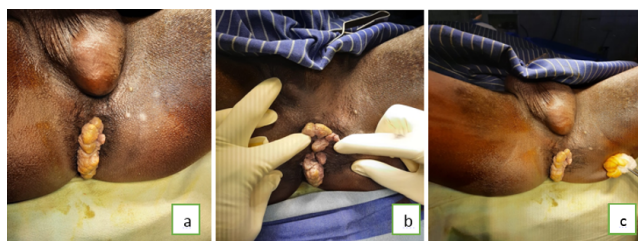


Fig. 1: (a,b,c): A 10 × 10 cm mass was observed which was covered with exudate with unpleasant odour, shaped like broccoli, and grew towards scrotum and penis root covering all perianal region beginning from anal canal.

2.1. Clinical Examination

General physical and systemic examinations were normal.

Multiple pedunculated skin coloured to pink coloured papules present over 6' o clock, 9' o clock and 11' o clock positions of peri anal region and few papules were present over the anal region (Figure 3). Initially he had a 10 × 10 cm mass was observed which was covered with exudate with unpleasant odour, shaped like broccoli, and grew towards scrotum and penis root covering all perianal region beginning from anal canal. (Figure 1). A provisional diagnosis of giant condyloma accuminatum was made on history and clinical examination. Patient was explained about the diagnosis along with treatment approach and informed consent was taken for further investigations and treatment protocol to rule out any other malignancies.

2.2. Investigations

WBC count and ESR was elevated. Histopathological examination shows acanthosis, papillomatosis, and parakeratosis (Figure 2 A). Papillary fronds of well-differentiated squamous epithelium with extensive hyperkeratosis and parakeratosis was seen. (Figure 2B). The epithelium was hyperplastic and had penetrated into the underlying tissues in broad bulbous down-growths, in a pushing rather than infiltrating pattern (Figure 2C & D). The cells in the superficial and intermediate layers showed extensive koilocytotic changes, morphologically similar to those of condylomatous lesions (Figure 2C & D). Tumour stroma was infiltrated by abundant chronic inflammatory cells (Figure 2C & D).

Based on clinical features, morphology of lesions and histopathology studies, a final diagnosis of Giant Condyloma Accuminatum was made. Hence the treatment with topical 5% Imiquimod cream along with tablets zinc and antioxidants were given for 4 weeks and follow up was made at the end of each week (Figures 4 and 5). A Psychiatry opinion was obtained and the patient was given counselling. Lesions started resolving without the emergence of new lesion.

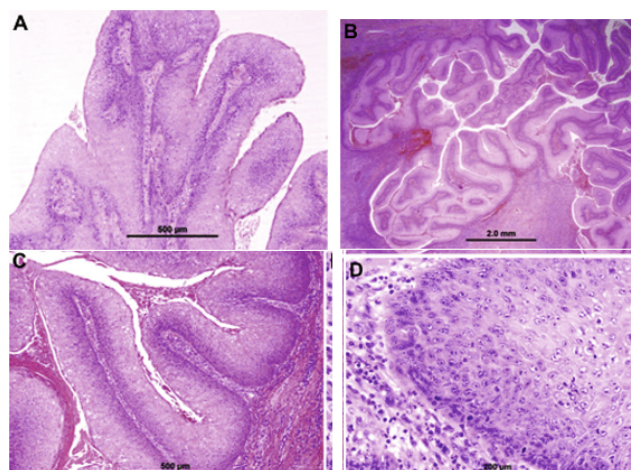


Fig. 2: **A:** Photomicrograph showing acanthosis, papillomatosis, and parakeratosis (H&E stain,x10). **B:** Photomicrograph showing Papillary fronds of well-differentiated squamous epithelium with extensive hyper-keratosis and parakeratosis is seen (H&E stain,x10). **C:** Photomicrograph showing The epithelium was hyperplastic and had penetrated into the underlying tissues in broad bulbous down-growths, in a pushing rather than infiltrating pattern (H&E stain, x10). **D:** Photomicrograph showing tumour stroma was infiltrated by abundant chronic inflammatory cells (H&E stain,x40).

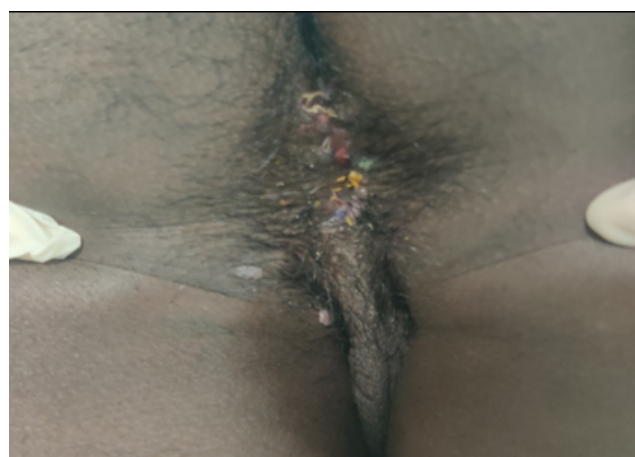


Fig. 3: Multiple pedunculated skin coloured to pink coloured papules present over 6' o clock , 9' o clock and 11' o clock positions of peri anal region and few papules were present over the anal region.



Fig. 4: Third week of topical imiquimod therapy .



Fig. 5: Fourth week of topical imiquimod therapy (lesions resolved completely).

3. Discussion

Buschke Lowenstein Tumour, otherwise known as Giant Condyloma Acuminata, presents as an asymptomatic, papillomatous growth on the genitalia or the perianal area that grows to a large size. Most lesions are 5cm or larger in diameter at the time of presentation. Their surface and consistency is variegated; soft areas have a papillomatous surface while hard areas have a smoother surface. Typical cutaneous and mucosal warts may be present adjacently. Maceration and secondary infection are frequent in uncircumcised men. Local invasion of the tumour may lead to perforation of the prepuce and extension into the deeper structures of the glans leading to induration. Buschke Lowenstein Tumor grows larger than typical genital warts and tends to persist for longer. Homosexuality, bad genital hygiene, chronic genital infections, and polygamy are considered as risk factors. In a study of 42 cases of Buschke-Lowenstein tumor affecting

the anorectal and perianal regions, the tendency for local recurrence was seen in up to 66% and was associated with a longer duration of disease; malignant transformation was seen in 56%.⁵ The prognosis is poor in untreated cases as the tumor can continue to grow and invade locally, causing death by exsanguination from femoral artery invasion or cachexia.⁶ Systemic or topical chemotherapy and radiotherapy can be applied to patients to whom surgical operation cannot be performed. Recurrence and progressive malignant transformation can occur even with treatment,⁷ and hence, long term follow up is necessary. Since malignant transformation was not observed in the histopathology of excised piece, chemoradiotherapy or any other new surgical invasion was not planned for the patient after surgery. Immune enhancers were given in the form of Imiquimod 5 percentage cream for 4 weeks over the fresh lesions post-surgery. Patient responded to the treatment brilliantly and got cured completely.

4. Conclusion

Early surgical resection of condyloma acuminatum prevents the development of Buschke Lowenstein Tumor. It is necessary to determine histopathologically whether a malignant transformation has occurred or not. Topical treatment with Imiquimod 5 % cream indirectly produces interferon-gamma and enhancement of cell mediated immunity responsible for viral killing. The frequency of applications need to be increased above the once weekly schedule. It is a non-nucleoside heterocyclic amine. It is an activator of Toll-Like Receptor 7. The purpose of this paper is to present the case that reached huge dimensions in the perianal region which was treated with wide resection, came to our outpatient department with recurrence and was successfully treated with topical Imiquimod 5 % cream.

5. Acknowledgement

We sincerely thank the Dean and staffs of tertiary care centre, Karaikal for their immense support in the completion of this study.

6. Source of Funding

None.

7. Conflict of Interest

None.

References

1. Boshart M, zur Hausen H. Human papillomaviruses in Buschke-Löwenstein tumors: physical state of the DNA and identification of a tandem duplication in the noncoding region of a human papillomavirus 6 subtype. *J Virol.* 1986;58(3):963–6.
2. Rijk AJD, Gabre S, Byass P. Field evaluation of WHO-MDT of fixed duration at ALERT, Ethiopia. The AMFES Project-II: Reaction and

- neuritis during and after MDT in PB and MB leprosy patients. *Lepr Rev.* 1994;65:320–32.
3. Bjorck M, Athlin L, Lundskog B. Giant condyloma acuminatum (Buschke-Lowenstein tumor) of the anorectum with malignant transformation. *Eur J Surg.* 1995;161:691–4.
 4. Brakel WHV, Nicholls PG, Das L. The INFIR Cohort Study: investigating prediction, detection and pathogenesis of neuropathy and reactions in leprosy. Methods and baseline results of a cohort of multibacillary leprosy patients in north India. *Lepr Rev.* 2005;76(1):14–34.
 5. Chu QD, Vezeridis MP, Libbey PN, Wanebo HJ. Giant condyloma acuminatum (Buschke-Lowenstein tumor) of the anorectal and perianal regions. *Dis Colon Rectum.* 1994;37(9):950–7.
 6. South LM, Sullivan JP, Gazet JC. Giant condylomata of Buschke and Lowenstein. *Clin Oncol.* 1977;3:107–15.
 7. Creasman C, Haas PA, Fox TA, Balazs M. Malignant transformation of anorectal giant condyloma acuminatum (Buschke-Loewenstein tumor). *Dis Colon Rectum.* 1989;32(6):481–7.

Author biography

Sivakumar S Professor

V Siva Subramanian Professor and HOD

Tony Kuncheria Post Graduate

Sukanya Siva Subramanian Post Graduate

Cite this article: Sivakumar S , Subramanian VS, Kuncheria T, Subramanian SS. **Buschke-lowenstein tumour: A case report.** *IP Indian J Clin Exp Dermatol* 2020;6(3):287-290.