

Cancer Association of South Africa (CANSA)



Fact Sheet on Giant Condyloma Acuminatum

Introduction

Giant condyloma acuminatum, also known as a Buschke–Löwenstein tumour and ‘Giant condyloma of Buschke–Löwenstein tumour’ is a rare cutaneous condition characterised by an aggressive, wart-like or cauliflower-like growth that is a verrucous carcinoma (an uncommon variant of squamous cell carcinoma). It is attributed to human papillomavirus infection.

[Picture Credit: Female Condylomata Acuminatum]

It is a slow-growing, locally destructive verrucous plaque that typically appears on the penis and vulva, but may occur elsewhere in the anogenital region. It most commonly is considered to be a regional variant of verrucous carcinoma, together with oral florid papillomatosis and epithelioma cuniculatum.

[Picture Credit: Male Condylomata Acuminatum]

Individuals with condylomata acuminata are at an increased risk for anogenital cancers. In a large Danish cohort study of 16 155 men and 32 933 women, individuals who were diagnosed with condylomata acuminata were at increased risk for anogenital and head and neck cancers for greater than ten years following the diagnosis (anal [SIR for men, 21.5; SIR for women, 7.8], vulvar [SIR, 14.8], vaginal [SIR, 5.9], cervical [SIR, 1.5], penile [SIR, 8.2], and head and neck cancer [SIR, 2.8], including subsites of head and neck cancer with confirmed HPV association [SIR for men, 3.5; SIR for women, 4.8]).

Approximately 90% of condyloma acuminata are related to HPV types 6 and 11. These 2 types are the least likely to have a neoplastic potential. Risk for neoplastic conversion has been determined to be moderate (types 33, 35, 39, 40, 43, 45, 51-56, 58) or high (types 16, 18), with many other isolated types. The picture is complicated by proven coexistence of many of these types in the same patient



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(10-15% of patients), the lack of adequate information on the oncogenic potential of many other types, and ongoing identification of additional HPV-related clinical pathology.

Irshad, U. & Puckett, Y. 2020.

“Giant condyloma of Buschke-Löwenstein (GCBL) is a type of verrucous carcinoma first described by Buschke and Löwenstein in 1925. It is a rare form of squamous cell carcinoma (SCC) that most commonly appears on the glans penis, foreskin, or perianal regions, but can also be found on other anogenital regions e.g., the vulva, vagina or the bladder. In rare instances, GCBL has been found in the axilla. GCBL typically begins as a small keratotic growth on the penile foreskin or coronal sulcus and gradually, over several years, morphs into a cauliflower-like mass, often up to 10 to 15 cm, with cutaneous fistulas and a cobblestone surface. GCBL is a slow-growing tumor, which in spite of its benign histopathology, is clinically malignant owing mostly to its locally destructive nature and its tendency to recur. GCBL ulcerates and invades deeper tissues, but does not generally metastasize. Malignant transformations of this tumor have been reported.”

Kim, H.G., Kesity, J.E. & Griswold, J.A. 2018. Giant anorectal condyloma acuminatum of Busche-Löwenstein presents difficult management decisions. *J Surg Case Rep.* 2018 Apr 3;2018(4):rjy058. doi: 10.1093/jscr/rjy058. eCollection 2018 Apr.

“Condyloma acuminata, or anogenital warts, caused by human papillomavirus are the most common sexually transmitted disease. In rare cases, the disease could progress to an extensive neoplasm called Buschke-Löwenstein tumor (BLT), also known as giant condyloma acuminatum. BLT differs from normal condyloma acuminata by presenting with locally invasive growth, lack of spontaneous resolution, tendency for recurrence after treatment and potential for malignant transformation. We examine a BLT case reaching large dimensions in the anorectal region treated with neoadjuvant chemoradiation therapy and surgical excision of residual lesions. Furthermore, continuous follow-up care can help identify and prevent recurrence or malignant transformation of the tumor.”

Incidence of Giant Condyloma Acuminatum in South Africa

The National Cancer Registry (2016) does not provide any information regarding this condition.

Risk Factors for Giant Condyloma Acuminatum

The following risk factors may increase a person’s chance of developing Giant Condyloma Acuminatum:

- history of human papillomavirus (HPV) infection and other sexually transmitted infections
- long-term exposure to chemicals
- long-term irritation of the penis or vulva
- poor genital hygiene
- inability to fully pull back (retract) the foreskin over the glans (phimosis)
- weakened immune system
- low socio-economic status
- drug abuse
- smoking
- Oral contraceptive use
- Multiple sexual partners

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- Early coital age
- Anal intercourse in both males and females

Signs and symptoms of Giant Condyloma Acuminatum

Both sexes are susceptible to infection. Overt disease may be more common in men (reported in 75% of patients); however, infection may be more prevalent in women. Prevalence is greatest in persons aged 17-33 years, with incidence peaking in persons aged 20-24 years.

- Appearance of typical plaque in the anogenital area of both sexes
- The chief complaint usually is one of painless bumps, pruritus, or discharge. Involvement of more than 1 area is common. History of multiple lesions, rather than one isolated wart, is common
- Oral, laryngeal, or tracheal mucosal lesions (rare) presumably are transferred by oral-genital contact
- Rarely, urethral bleeding or urinary obstruction may be the presenting complaint when the wart involves the meatus
- Coital bleeding may occur. Vaginal bleeding during pregnancy may be due to condyloma eruptions
- Pruritus may be present
- Discharge may be a complaint

Diagnosis of Giant Condyloma Acuminatum

To confirm histopathologically, deeper tissue must be biopsied to ensure that no malignant cytological characteristics are missed in superficially biopsied specimens.

Treatment of Giant Condyloma Acuminatum

Medical management - A variety of chemotherapeutic modalities have been used with mixed success as adjuvants to surgery or to treat recurrences.

Radiation therapy – This remains controversial.

Surgical management - The standard approach for managing perianal giant condyloma acuminata is radical surgical excision. Patients with multiple fistulous tracts and purulent discharge may require a temporary loop colostomy.

Chen, X., Zhou, Y., Tan, Y., Duan, G., Li, Z., Zou, P., Xiao, R. & Zhan, Y. 2020

“Patients with condylomata acuminata of the vulva usually have increased difficulty to achieve complete response to treatment and also have a higher risk for disease recurrence. Treatment for this disease varies, including surgical excision, cryotherapy, electrocautery, CO2 laser therapy, topical therapy, and photodynamic therapy (PDT), but none of these alone provides a satisfactory outcome, especially for giant condyloma acuminatum (GCA). We reported two cases of GCA successfully cured with surgical removal, electrocautery and photodynamic therapy.”

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Balducci, G., Carbotta, G., Sederino, M.G., Delvecchio, A., Laforgia, R., Sallustio, P., Lobascio, P., Ferrarese, F., Minafra, M., Fedele, S. & Palasciano, N. 2017.

“The giant condyloma acuminatum or Buschke-Loewenstein tumor is a rare, sexually transmitted disease. It is an epithelial tumor characterized by its high potential of malignancy towards developing into a highly invasive squamous cell carcinoma. The present case concerns a drug addicted 40-year-old man who smuggled drugs using his rectum. He had a partially ulcerated mass in the perianal area of about 20 x 10 cm. He reported a progressive growth of this neoplasm during the last 3 years associated with perianal pain, obstructed defecation, bad sitting posture, no fever and weight loss. Our first approach was a left laparoscopic loop colostomy for a fecal diversion and analgesic purpose, and biopsy of the perineal mass. Then, he underwent a complete excision of the perianal neoplasm. The pathologist's positive diagnosis of a well differentiated squamous cell carcinoma, evidently necessitated the radicalization of the surgical procedure of abdominal perineal resection. In consideration of the surgical wound depth and size, a VAC Therapy with Negative Pressure Wound Therapy was applied. The BLT incidence rate has been steadily increasing over the last decade especially among male patients. An aggressive surgical approach is usually to get the best oncologic outcome but the difficult management of the perianal wound is challenging. In our experience VAC therapy has been shown to be an effective tool in promoting the healing of the perineal wound after abdominoperineal resection.”

Shenoy, S., Mittala, M. & Assaf, Y. 2019.

BACKGROUND: Anal cancers are caused by human papilloma virus (HPV). Buschke-Lowenstein tumor also known as giantanal condyloma (GCA) is a variant of giant neglected anal tumors arising from warts caused by HPV infection. HPV are a family of double-stranded DNA viruses and primarily cause sexually transmitted disease of the genitalia and oropharyngeal mucosa. These tumors are slow growing; locally destructive large verrucous masses.

CASE SUMMARY: We present a series of two cases with large anal tumors harboring invasive cancers and highlight their presentation and management. Tumors with high risk HPV subtypes (HPV 16, 18, 31, 33) may progress into invasive squamous cell carcinoma (SCC). Untreated GCA can attain enormous size and extend into the pelvic organs and bony structures. Some tumors show malignant degeneration into SCC and are often difficult to diagnose given the large size of the tumors. Complete surgical excision with negative margins is the treatment of choice and necessary to prevent recurrence. This is often not feasible and leaves large surgical wounds with tissue defects with delay in healing and increases post-operative morbidity. Pelvic reconstructive techniques including muscle flaps and grafts are often necessary to close the defects. Human immunodeficiency virus and immunocompromised patients generally do poorly with standard treatments.

CONCLUSION: A multidisciplinary team of colorectal and plastic surgeons, medical and radiation oncologists along with combination treatment modalities are necessary when malignant transformation occurs in GCA, for optimal outcomes.

Burati, M., Chiarelli, M., Terragni, S., Tagliabue, F., Ripamonti, L., Maternini, M. & Guttadauro, A. 2018.

“Giant condyloma acuminatum (GCA) is a rare cauliflower-like lesion, also known as Buschke-Lowenstein tumor (BLT). Although characterized by benign histological features, the local behavior of GCA is extremely aggressive, showing progressive infiltration of the surrounding structures leading to tissue destruction by compression. As the correlation between HPV and GCA development grew

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stronger, the majority of the Authors came to the conclusion that HPV can not only cause CA but, associated with particular risk factors, it can lead to much more serious conditions such as BLT. Since the treatment of GCA is still not yet standardized, a very accurate pre-operative analysis of the lesions is required to plan the most suitable treatment approach. Based on current knowledge, macroscopic evaluation of local tumor invasion and extensive radical resection appear to be the only valid therapeutic approach, due to its association with longterm survival and minimal recurrence. Looking forward for new techniques and new tissue sparing treatments, at the moment, GCA can be safely treated with radical excision without immediate tissue reconstruction; long-term complications, such as stricture and stenosis, can be prevented by adequate wound healing and by a particularly intense and long- term follow-up program.”

About Clinical Trials

Clinical trials are research studies that involve people. They are conducted under controlled conditions. Only about 10% of all drugs started in human clinical trials become an approved drug.

Clinical trials include:

- Trials to test effectiveness of new treatments
- Trials to test new ways of using current treatments
- Tests new interventions that may lower the risk of developing certain types of cancers
- Tests to find new ways of screening for cancer

The [South African National Clinical Trials Register](#) provides the public with updated information on clinical trials on human participants being conducted in South Africa. The Register provides information on the purpose of the clinical trial; who can participate, where the trial is located, and contact details.

For additional information, please visit: www.sanctr.gov.za/

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Male Condylomata Acuminatum

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