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A giant condyloma acuminata of Buschke and Lowenstein extending to the pubic region and penis

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Abstract

Objective: Anogenital warts (condyloma acuminatum or veneral warts) are a common sexually transmitted disease among males and females. The causal role of human papilloma virus in anogenital wart formation has been firmly established.

Case presentation: We report a case of a giant condyloma acuminata involving the penis, inguinoscrotal area and extending to the pubic region in a 30-year-old male patient. It was treated by wide surgical excision. Excision defect was extensive and required cover with fascio-cutaneous flap. The postoperative course of the patient was uneventful. Histological examination confirmed giant condyloma acuminata without evidence of malignancy.

Conclusion: While there is no standard treatment for giant condyloma acuminate due to its biological behavior, surgical excision remains the method of choice to achieve local control of the disease. This case report confirms previous observation that extensive giant condyloma acuminate involving the penis or groin areas rarely become malignant compared to that involving the anorectal area of the body.

Keywords: giant condyloma acuminatum, Buschke-Lowenstein tumor, human papilloma virus, surgical excision, flap

ШАП АЙМАҒЫ МЕН ЕРКЕК ЖЫНЫС МҮШЕСІНЕ ЖАЙЫЛҒАН БУШКЕ-ЛЕВЕНШТЕЙННІҢ АЛЫП КОНДИЛОМАСЫ

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ТҰЖЫРЫМДАМА

Мақсаты: Аногенитальды сүйелдер (кондилома немесе жыныстық сүйелдер) жыныстық жолмен берілетін еркектер және әйелдер арасында кең таралған ауру. Адам папиллома вирусы аногенитальды сүйелдердің дамуында септігін тигізетіні толық дерлік айқындалған.

Клиникалық жағдай: Біз еркек жыныс мүшесін, шап-ұма аумағын қамтыған және қасаға аймағына дейін таралған алып кондиломасы бар 30 жастағы ер кісінің клиникалық жағдайын ұсынамыз. Оған ем ретінде кең хирургиялық кесу жүргізілді. Кесіп алынғаннан кейін дефект көлемінің кең ауқымдығына байланысты тері-шандырлық кесіндімен жабу қажет болды. Науқастың операциядан кейінгі кезеңі еш ерекшеліксіз. Гистологиялық зерттеу алып кондиломаның малигнизациялық үрдіссіз екенін растады.

Қорытынды: Қазірге дейін алып кондиломаның стандартты емінің жоқтығына қарамастан, хирургиялық ем таңдаулы әдіс болып саналады. Бұл клиникалық есептеме алдыңғы бақылауды, яғни еркек жыныс мүшесі және шап аймағының алып кондиломасы аноректальды аймағының кондиломасымен салыстырғанда сирек жағдайда қатерлі ісікке айналуын растайды.

Негізгі сөздер: алып кондилома, Бушке-Левенштейн ісігі, адам папиллома вирусы, хирургиялық кесу, кесінді

ГИГАНТСКАЯ КОНДИЛОМА БУШКЕ-ЛЕВЕНШТЕЙНА В ПАХОВОЙ ОБЛАСТИ И В ПОЛОВОМ ЧЛЕНЕ

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РЕЗЮМЕ

Цель: Аногенитальные бородавки (остроконечная кондилома или венерические бородавки) являются распространенным заболеванием, передающимся половым путем среди мужчин и женщин. Роль вируса папилломы человека в причине образовании аногенитальных бородавок была твердо установлена.

Случай-презентация: Мы сообщаем о случае гигантской остроконечной кондиломы, в котором вовлечен половой член, пахово-мошоночная область и простирающейся до лобковой области у 30-летнего мужчины. Проведено широкое хирургическое иссечение. Иссеченный дефект был обширным, что потребовалось закрыть кожно-фасциальным лоскутом. Послеоперационный период пациента был без особенности. Гистологическое исследование подтвердило гигантскую остроконечную кондилому без процессов малигнизации.

Заключение: Несмотря на то, что при гигантской остроконечной кондиломы нет стандартного лечение, хирургическое иссечение остается методом выбора. Этот клинический отчет подтверждает предыдущее наблюдение, что гигантская остроконечная кондилома включающая в себе половой член и паховую область, редко становится злокачественной по сравнению с той, которая включает аноректальную область.

Ключевые слова: гигантская остроконечная кондилома, опухоль Бушке-Левенштейна, вирус папилломы человека, хирургическое иссечение, лоскут

Introduction

External genitalia wart, also known as Condyloma acuminata, is a common form of sexually transmitted disease. It is caused by human papilloma virus (HPV) [1, 2]. Poor hygiene and immunosuppressive drug therapy are known predisposing/ risk factors [3]. Other possible risk factors include: smoking, multiple sexual partners, anal intercourse, anaerobic infections, local chronic inflammation and immune deficiency states or syndromes (Netherton syndrome) [4]. Giant Condyloma acuminatum (GCA), also known as Buschke-Lowenstein tumor (BLT) is a very rare sexually transmitted disease that affects the ano-genital region. It is more common and severe in patients with immunological defect. Condylomas have been well known in history with physicians of ancient Roman Empire calling them as "figs" which were thought to result from excessive sexual exploits [5]. Although GCA is benign, it has malignancy tendencies as it can grow up to 10 cm, which is locally invasive and damaging [6]. We represent a case of an extensive GCA involving the penis, groin area and suprapubic area of the anterior abdominal wall, successfully treated by wide local excision and reconstruction with a local flap.

Case report

A 30 years old heterosexual man presented with a 5-year history of a progressively increasing in size painful, pruritic mass on his penis, the groin area and extending to the lower anterior abdominal wall (Figure 1). The patient claimed that the current massive growth started as small papillomatous growths on the shaft of his penis and increased in size gradually with time and now extends to his groin and lower abdominal wall. The mass produced a foul smell and bled on touching from time to time. Since childhood he suffered from lymphedema affecting the left half of his body (Figure 1). He was diagnosed with diffuse lymphangiomatosis by the vascular surgeons 5 years ago. He had a left hydrocoelectomy when he was 13 years old. He developed right spontaneous hydrothorax and underwent 2 thoracentesis about 3 years prior to presentation to us.

Physical examination revealed an enormous, exophytic, cauliflower-like mass about 20 cm in length and 15 cm in width covering the pubic area and extending into the groin (Figure 1). Viral warts also covered most of the skin of the shaft of the penis and glans penis (Figure 1). The mass gave off a foul smelling odour. There was also edema affecting the left half of the body of the patient that also includes the left hemi-scrotum. Haematological and biochemical blood tests were grossly normal. Patient was HIV negative, HbsAg positive and HCVAg positive. Patient accepted to undergo surgical excision of the mass.

The mass was completely excised. Frozen sections of resection margin revealed absence of malignancy. Following excision of the mass, there was a resultant skin defect about 21 x 15 cm wide in the pubic and groin area of the patient (Figure 2). The skin defect was covered using a fasciocutaneous flap from local tissues (Figures 3 and 4). The skin incision was closed using 3/0 non-absorbable suture material. Histological examination of the specimen revealed giant Condyloma acuminatum (Buschke-Lowenstein tumor) with clear surgical margins and no evidence of malignant transformation. There were no postoperative complications and the patient was discharged on the third post-operative day.

Discussion

GCA was first identified by Buschke and Loewenstein in 1925 as penile condyloma resembling carcinoma without true microscopic invasion findings [7, 8]. It has a benign appearance and rarely metastasizes. Several studies have shown that condyloma acuminata grows by expansion rather than by infiltration. It shows sometimes endophytic but generally exophytic growth pattern and a tendency to form fistula with bacterial colonization. Our case shows an exuberant exophytic pattern with areas that look macroscopically malignant. Abscesses and fistulas are more common in lesions in perianal regions and quite dangerous since they may lead to chronic sepsis [7, 8].They are mostly associated with infection by low grade HPV 6 and 11 [9]. It is a rare condition, and its pathogenesis and natural history are not well understood. Some authors have proposed that it represents an intermediate stage between condyloma acuminatum and squamous cell carcinoma [10]. The most frequent location of GCA in males is the penis in about 81-94% of cases and in females the vulva in about 90% of cases [11, 12]. Secondly in both sexes is the perineum [11,12]. Lymphadenopathy associated with this lesion are mostly reactive to the lesion or superinfection, they rarely correspond to metastasis [1, 12, 13]. Malignant transformation has been reported in about 50% of cases, which is associated with a high recurrence rate and a poor prognosis [7]. Malignant transformation is commoner with GCA involving the anorectal region compared to that affecting the penis or inguinoscrotal areas [7,8,10]. A regular follow-up is necessary because of the frequent recurrences and possible malignant transformation.

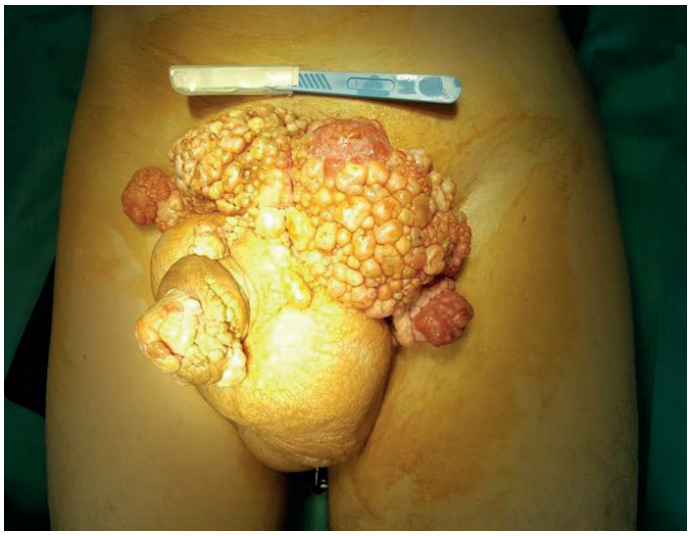


Figure 1 - Giant tumor seen involving the glans penis, shaft of the penis, groin and pubic region of anterior abdominal wall. Despite the extensive nature of the disease, there was no malignant transformation. Note the left hemi lymphedema.

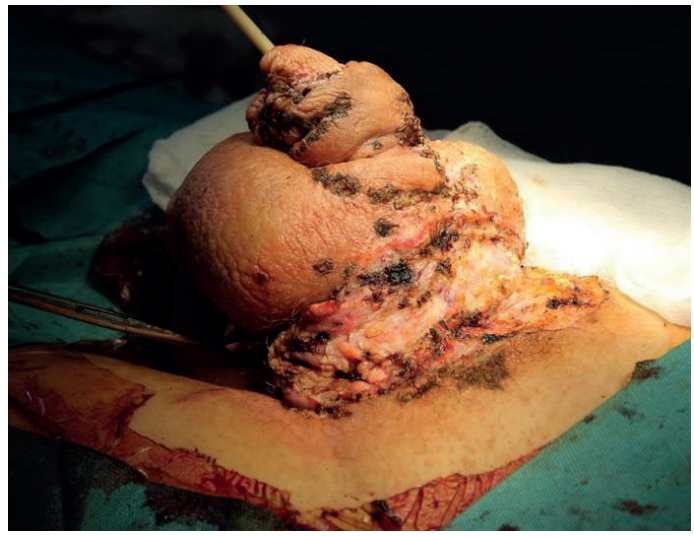


Figure 2 - View after widelocal excision of the mass.

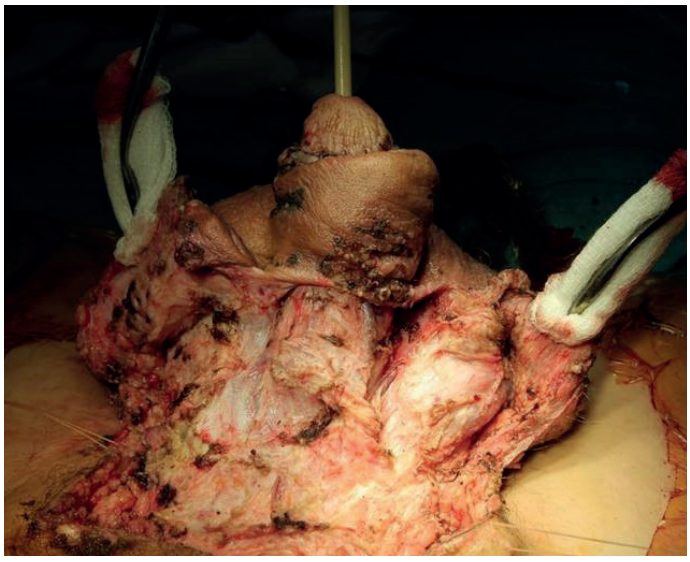
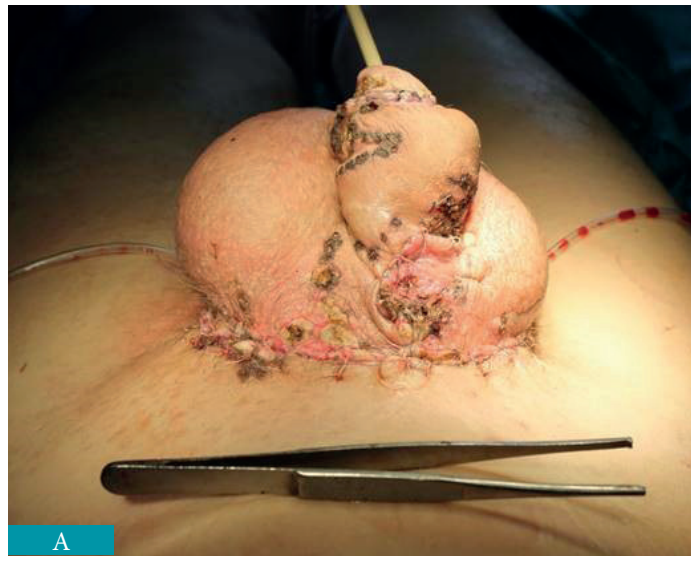
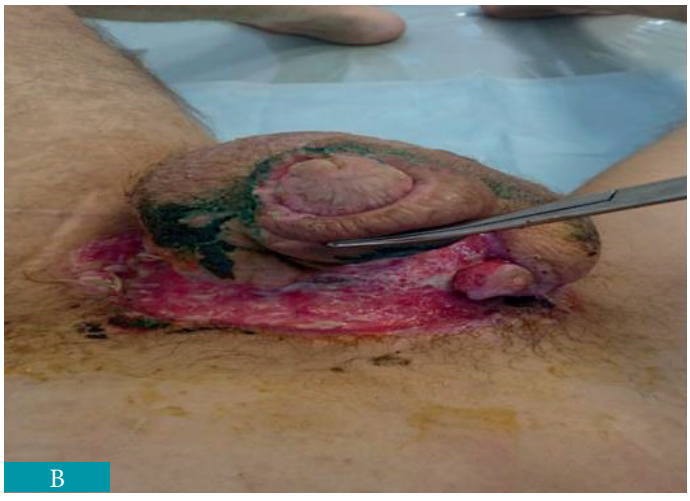


Figure 3 - View after local wide excision and raising of local fascio-cutaneus flap.





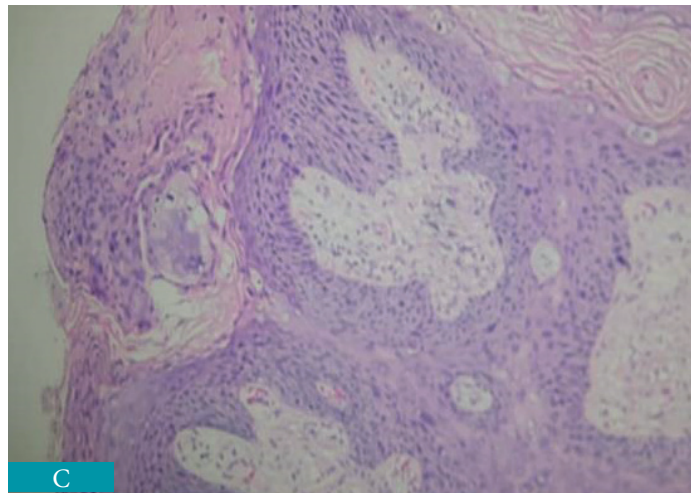


Figure 4 - A-view after local wide excision and closure of skin defect using local fascio-cutaneus flap.
B-view after 1-month.
C-microscopic histological features: squamous epithelium presenting hyperplasia and acanthosis, koilocytosis and parakeratosis.

Our case is very interesting because, the patient has relatively small volume lesions on the glans penis and the penile shaft. More than 95% of the bulk of the GCA in our patient was located in the inguinoscrotal area with extension to the pubic region of the lower anterior abdominal wall. For small lesions, electrocautery, podopyhyllin and laser could be used for treatment. For extensive lesions such as in our patient, the most effective treatment option is wide surgical excision with primary closure of the skin [14, 15]. Indications for chemotherapy and radiation are non-resectable or recurrent diseases. Although their effectiveness have not been fully documented. Primary skin closure may prove difficult with wide local excision and a variety of techniques such as skin grafting, raising local cutaneous flaps, and fascio- or myocutaneous flaps may be required. Nahai et al. described the use of tensor fascia lata myocutaneous flap for groin defects [16]. Bostwick et al. used the omentum and myocutaneous flaps for the repair of groin defects after ablative surgery [17]. Wang et al. used the medial fasciocutaneous flap for the repair of perineum, vagina and groin defects [18]. In our patient, because of the florid nature of the lesion and its location in an uncommon part of the patient's anatomy we decided to obtain frozen section of many areas of the resection margin to ensure adequate resection had taken place and that there was no malignant transformation. With frozen sections showing no malignant transformation, we proceeded to close the extensive defect after excision by raising a local fascio-cutaneous flap. Our experience confirms that reported by Li et al who recommended using an anterolateral thigh flap to close such extensive defects after excision of GCA [4]. The patient's postoperative course was uneventful. Histological examination of the lesion confirmed GCA with no evidence of malignancy. The histological finding is in keeping with previous observations that GCA involving the penis or the penoscrotal areas are less prone to malignant transformation compared to that affecting the anorectal region [7,8,10]. Radical surgery remains the gold standard in the management of a giant Bushke-Lowenstein tumor.

Conclusion

Giant condyloma acuminata is a sexually transmitted disease. It is slow growing and produces cauliflower-like tumour on the penis and occasionally the inguinoscrotal area of the body as in our patient. The lesion can be successfully treated using wide local surgical excision. Post treatment, regular follow up is necessary to detect possible recurrence or malignant transformation.

Disclosures: There is no conflict of interest for all authors.
Patient informed consent: obtained

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