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Reconstructive surgery in anal giant condyloma: Report of two cases☆

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ABSTRACT

INTRODUCTION: Giant anal condyloma also called Buschke–Löwenstein tumor is a rare sexually transmitted disease involving anogenital region with potential malignant degeneration into invasive squamous carcinoma. Complete surgical excision is the treatment of choice and often wide wounds are necessary to reach clear margins and prevent recurrence.
PRESENTATION OF CASE: The authors present two cases treated with an S-plasty rotating and a bilateral house advancement flap respectively with good functional result.
DISCUSSION: Giant anal condyloma also called Buschke–Löwenstein tumor is a large exophytic, cauliflower-like mass that is characterized by local aggressive behavior. Immunosuppression favors rapid growth of the condylomas and increases the risk of their malignant transformation. In limited lesions primary excision can be safely performed leaving wounds open to granulate while in more extensive lesions flap or skin graft coverage is preferable to decrease the length of recovery and minimize risk of severe anal stricture. Abdominoperineal resection should be performed for more extensive lesions with deep invasion, malignant transformation or tumor recurrence.
CONCLUSION: Giant anal condyloma also called Buschke–Löwenstein is a rare pathology with mainly sporadic single center experience reported in literature. Surgical complete excision remains the best treatment although elevate should be eventual recurrence. No sufficient data are available to recommend any medical treatment such as interferon, radiotherapy or chemotherapy.

1. Introduction

Giant anal condyloma is a rare sexually transmitted disease involving the perianal and external genital tract area in the form of a large exophytic, cauliflower-like mass. Complete surgical excision is the treatment of choice and often wide wounds are necessary to reach clear margins and prevent recurrence.

Various rotation or advancement flaps can be utilized as alternatives methods for covering wide wounds, decrease the length of recovery and minimize risk of anal stricture.

We present two cases treated with an S-plasty rotation and a bilateral house advancement flap respectively.

2. Presentation of cases

2.1. Case 1

A 60-year-old man, heterosexual, presented in our department in June 2009,with a typical cauliflower-like tumor mass involving the perianal region.

He had been taking immunosuppressive therapy for a cardiac transplant for some years.

Detailed examination showed no propagation into the anal canal. The lesion gradually increased in size causing difficulty walking and sitting (Fig. 1).

The lesion was treated with a large surgical excision (Fig. 2) and reconstruction using a bilateral rotation S-plasty flap (Fig. 3).

An unilateral hematoma and subsequent partial dehiscence of the flap complicated his postoperative course. The patient was treated with daily wound cleansing with a good final result.

2.2. Case 2

A 64-year-old heterosexual man presented in our department in May 2012 with a typical cauliflower-like tumor mass involving the perianal region, and multiple condylomata involving the

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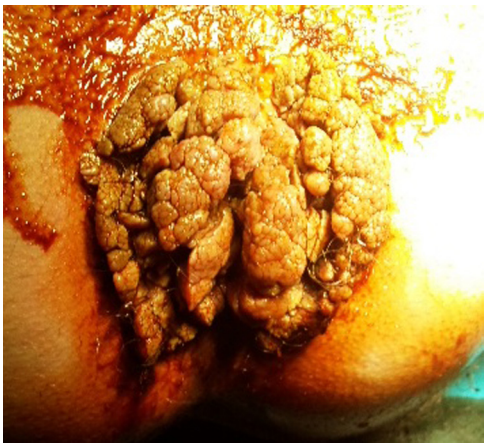

Fig. 1. Case 1: Giant anal condyloma involving the perianal region.

Fig. 2. Case 1: Wide surgical excision with a sphincter saving procedure.

Fig. 3. Case 1: Intraoperative image while performing bilateral rotating S-plasty flap.

Fig. 4. Case 2: Bilateral house advancement flap.

penis and prepuce. The patient was reluctant to undergo to medical treatment as symptoms had been present for 20 years. He was in good health and HIV test was negative. Colonscopy and anoscopy excluded involvement of the anal canal.

The patient was treated with a wide surgical excision and reconstruction with a bilateral house advancement flap (Fig. 4).[2] The lesion on the penis and prepuce were excised by electrocautery scissors and a circumcision respectively.

In this case dehiscence of the muco-cutaneus anastomosis developed during the second postoperative week maybe due to straining during defecation with consequent increased tension. At one month the result was good without anal stenosis and a good continence.

Both patients were given a bowel preparation with polietilenglicole 4 l.

Intravenous antibiotic therapy with cephalosporine and metronidazole was administered for 7 days. Enoxaparin was used for antithrombotic prophylaxis.

A liquid diet and codeine were administered to all patients for three days after surgery to prevent evacuation and early contamination of the wound.

3. Discussion

Giant anal condyloma also called Buschke–Löwenstein (GCBL) tumor is a large exophytic, cauliflower-like mass that is characterized by local aggressive behavior. Despite a benign histology in most cases, malignant degeneration into invasive squamous carcinoma (SCC) is possible especially in immunocompromised patients. Foci of invasive carcinoma are noted in 50% of the reports and carcinoma in situ in 8%.[1]

Histologically GCBL presents with massive epidermal hyperplasia, hyperkeratosis and parakeratosis and is markedly exophytic. Blunt-shaped masses of tumor project deeply into the dermis but tumor cells have little evidence of atypia and are not found inside

blood vessels or lymphatics. Lymphohistiocytic inflammation is usually present.[2]

Buschke–Löwenstein tumor is a sexually transmitted disease and like genital tract condylomata, Bowen's disease, anal squamous intraepithelial lesions and anal cancer are strongly associated with HPV infection.[2] HPV types 6 and 11 have been associated with GCBL. For this reason patient's sexual habit should be investigated and if possible the patient's sexual partners should also be examined.

Immunosuppression favors rapid growth of the condylomas and increases the risk of their malignant transformation maybe favoring the oncogenetic mechanisms caused by HPV infection.[3]

The patient's immunological status must be checked including screening test serology for STDs [Human immunodeficiency virus (HIV), syphilis, hepatitis B virus (HBV)] and hepatitis C virus (HCV).

Complete surgical excision is the treatment of choice of GCBL. It allows histologically examination of the entire specimen and to evaluate for foci of SCC. The cure rate with radical surgery reportedly is 61% and recurrences of giant condyloma acuminatum can be successfully treated with radical surgery.[4,5]

In limited lesions primary excision can be safely performed leaving wounds open to granulate without major primary flap reconstructions.[6]

In more extensive lesions flap or skin graft coverage is preferable to decrease the length of recovery and minimize risk of severe anal stricture.

The experiences reported in the literature are heterogeneous and mostly derived from case reports. Circumferential sleeve rectal advancement, house advancement, S-plasty rotations, V–Y advancement flaps are all effective alternatives methods for covering wide wounds. Most authors do not perform colostomy for fecal diversion with acceptable postoperative complication rate. A combination of bowel cleansing, low fiber diet and loperamide can be administered to reduce early contamination with feces of the wound.[7–9]

In cases of anal canal involvement when mucosectomy extends beyond the dentate line colostomy helps to prevent potentially serious pelviperineal sepsis due to the high rate of suture dehiscence at this level.

When performing anoplasty it is important to construct large flaps with a good blood supply and to obtain complete hemostasis of the raw surface to prevent hematomas as in our case 1. Avoidance of tension on the muco-cutaneus anastomosis is important but not always technically simple. Partial or complete dehiscence is not uncommon as in our experience but with a good follow up anal stenosis is rare.[6,7]

Abdominoperineal resection should be performed for more extensive lesions with deep invasion, malignant transformation or tumor recurrence.

No sufficient data are available to recommend any medical treatment such as interferon, radiotherapy or chemotherapy although sporadic cases of deeply infiltrating or recurrent tumors have been treated with apparent good results.[10–12]

4. Conclusions

Giant anal condyloma also called Buschke–Löwenstein is a rare pathology with mainly sporadic single center experience reported in literature. Surgical complete excision remains the best treatment although elevate should be eventual recurrence. Advancement or rotating flaps are effective alternative methods for covering wide wounds. Postoperative complications such as hematoma or suture dehiscence are possible and should be avoided with accurate haemostasis and a good mobilization of the flap. Local wound cleansing and an adequate follow up can avoid anal stenosis even without performing colostomy.

Conflict of interest

The authors declare that they have no conflict of interest.

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Ethical approval

The authors declare that written informed consent was obtained from the patient for publication of this case report and accompanying images.

Author contributions

All the authors contributed to the writing and collection of data. Firs author and Director were the operators in the surgical procedure illustrated.

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