

Utility Of The Ultrasonic Scalpel In The Surgical Treatment Of The Buschke-Lowenstein Tumor (Giant Condyloma Acuminata)

J Carvajal Balaguera, S Oliart Delgado de Tórres, M Martín García-Almenta, J Camuñas Segovia, L Peóa Gamarra, P Gómez Maestro, P Fernández Isabel, S Viso Ciudad, A Prieto Sánchez, C Cerquella Hernández

Citation

J Carvajal Balaguera, S Oliart Delgado de Tórres, M Martín García-Almenta, J Camuñas Segovia, L Peóa Gamarra, P Gómez Maestro, P Fernández Isabel, S Viso Ciudad, A Prieto Sánchez, C Cerquella Hernández. *Utility Of The Ultrasonic Scalpel In The Surgical Treatment Of The Buschke-Lowenstein Tumor (Giant Condyloma Acuminata)*. The Internet Journal of Surgery. 2005 Volume 8 Number 1.

Abstract

Giant Condyloma Acuminata (Buschke and Lowenstein tumours) is a variation of condyloma caused by a sexually transmitted virus infection. Although it is a benign disease, it carries a risk of malignant transformation. Primary locations of giant condyloma are the perianal region and the external genitalia. We report an asymptomatic case of inguinal and perineal giant acuminata condyloma in a 46-year-old male of eight years evolution. After the surgical resection ultrasonic scalpel, the patient is free of recurrence twelve months later.

INTRODUCTION

Human papillomavirus (HPV) is one of the most common sexually transmitted disease (STD) and a significant cause of anogenital malignancies, premalignant lesions (cervical and anal intraepithelial neoplasia), and cutaneous disease. The most common manifestations of anogenital HPV-associated disease are genital warts (condylomata acuminata). These have the appearance of gray or flesh-colored sessile or pedunculated exophytic papules that may be found on the penis, vulva, cervix, anus, or perianal areas (1). Giant condyloma acuminata (GCA) or Buschke-Lowenstein tumors, are variants of warts, characterized by large cauliflower-like lesions on the penis or perianal area. Surgical extirpation constitutes the election treatment (2)

We present an asymptomatic case of GCA, of long evolution, in a patient with negative HIV serology, treated with surgical resection, using the ultrasonic scalpel with extirpation of all the lesions in a unique session.

The purpose of this article, making an evaluation of the utility of the ultrasonic scalpel, in the surgical treatment of this pathology.

CLINICAL CASE

A 46 year-old male, without antecedents of interest, consults for presenting vegetating lesions in the anal region, of asymptomatic character and of eight years of evolution. He had no history of immunodeficiency disease and took no medication. He denied having anoreceptive intercourse. Anal, perianal, inguinal and penis examination revealed giant condylomata (Fig. 1 and 2). Common analysis of laboratory: without alterations. Serology for lues, virus hepatitis A, B, C and HIV were negatives. Endoscopy didn't reveal extension of the illness in to the anorectal channel.

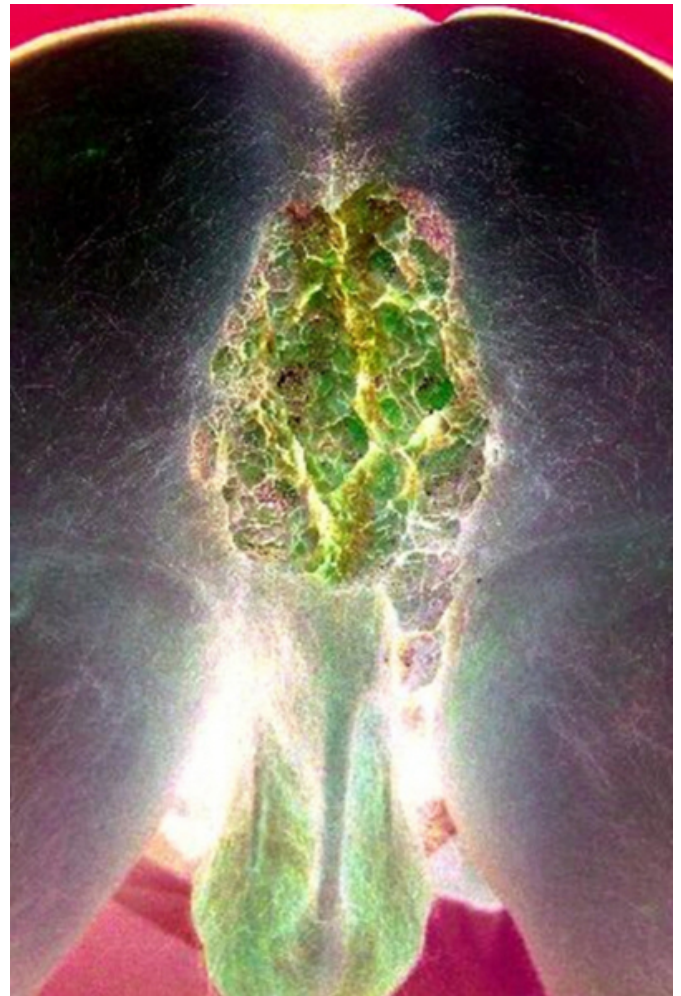
Figure 1

Figure 1: Pre-operative picture showing extent of lesion (external genitals)



Figure 2

Figure 2: Pre-operative picture showing extent of lesion (perineal region)

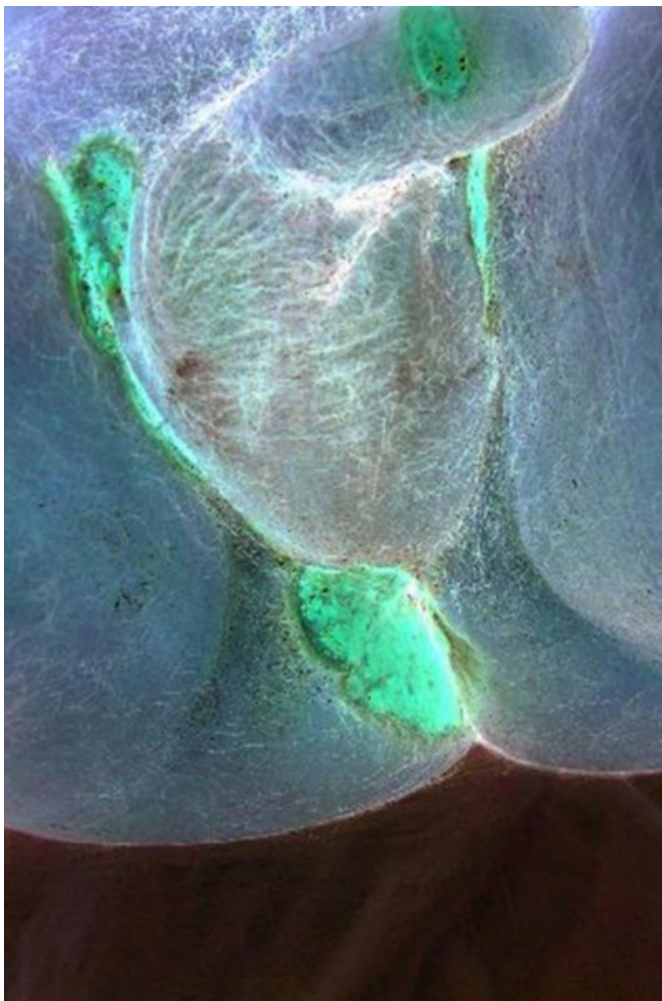


Surgical resection of the lesions was indicated, being carried out under intradural and sedation anaesthesia, extirpation was done with ultrasonic scalpel (Generator ultracision: Ethicon Endo-surgery, INC.), of all the lesions. After of placing the patient in gynaecological position, the extirpation of the lesion began in the healthy border of the skin of the region perianal, first the right side and then the left side. Finally we extirped the lesions of the genital region. The resection of the lesion was made following the cellular subcutaneous plan, carrying out small court-clotting manoeuvres until the total extirpation of the lesion. The lesion of the anal margin was also extirpated. we don't find affectation of the anal channel. After the resection we revise the homeostasis and humid gazes of physiologic serum were placed. The postoperative pain, was controlled with metamizol and ketorolaco. After surgical intervention, daily cures were carried out, until the scaring of the wounds

four weeks later. (Fig. 3). Histology showed a massive epidermal hyperplasia, hyperkeratosis and had markedly exophytic. Keratinocytes had large cytoplasm and a nucleus with prominent nucleoli. No sign of malignancy was detected. After a year of follow-up, the patient is free of recurrence with good anorectal continence and carrying out a normal life.

Figure 3

Figure 3: Post-operative picture showing extent of perineal and genital resection



DISCUSSION

Giant Condyloma Acuminata and verrucous carcinoma are separate entities: GCA with very low malignant potential and the other with high capacity to metastasize. The incidence of malignant transformation seems of GCA to be increasing and incidences going from 0,75⁽³⁾ to 1,8%⁽⁴⁾

Examination of the external genital should be performed in both sexes using the assistance of a magnifying lens and a bright source, when needed. Given the common coexistence

of genital warts and other lesions (78%)⁽²⁾, women presenting with genital warts should be offered colposcopy. Similarly, men and women presenting with perineal warts may be considered for high resolution anoscopy. Our patient did not presenting lesions in anus and rectum.

The treatment of choice for GCA is wide surgical excision. However, the cryosurgery, electrocauterization, or laser therapy can be used with different success. Topical treatment has been used with mixed success as adjuvant to surgery or as treatment for recurrences^(5,6,7,8,9).

Due to the controversial results of different surgical therapies used for GCA, in relation to quality of life, aesthetic results, functional results and recurrences, we believe that the harmonic scalpel or of ultrasound, has some important advantages, when extirpating the big condylomas, with affectation of extensive areas, as the case that we present.

The main advantages of the surgical excision with ultrasonic scalpel of GCA include: Capacity of histological examination the entire of specimen to ensure clear margins and to evaluate focus of squamous cell carcinoma. It allows radical extirpation of the whole lesion with a low recurrence rate and better prognosis. The scalpel at the same time that it dissects it cauterizes the operative field, reduces haematic losses and it guarantees a better homeostasis, with good esthetical and anatomical results⁽¹⁰⁾.

Harmonic scalpel contributes to bigger security in the cut and clotting, with smaller chances of derived complications of the collateral effects of another type of energies, as electricity or laser. It doesn't produce thermal lesions in the neighbour structures, allowing us to act near delicate structures. Other advantage of using ultrasonic scalpel is the reduction in operative time. Also, it can be safety used in pregnant patients⁽¹¹⁾.

Surgery with harmonic scalpel is quick and safe, permitting realise the process in only one operative session. The postoperative recovery is good and lesser amounts of analgesia are needed with a shorter postoperative stay⁽¹²⁾.

Use of the ultrasonic scalpel produced faster re-epithelialization and greater tensile strength than laser or electrosurgical instruments, with results comparable to those seen with the steel scalpel⁽¹³⁾.

The results of the Sood et al. Study, show that in terms of

operating time and blood loss, the ultrasonic harmonic scalpel is comparable to diathermy and laser surgery.; however, it has advantages over diathermy in that it does not require a ground electrode pad, it does not cause nerve stimulation, it reduces the thermal effects to surrounding tissues, and it obviates problems associated with electrical current leakage (14).

The management of the ultrasonic scalpel doesn't need a special ability from the surgeon, since it only substitutes the electronic conventional scalpel and it doesn't present any difficulty.

The harmonic scalpel is the leading ultrasonic cutting and coagulating surgical device, offering surgeons important benefits, However should consider conducting studies on cost-effectiveness to evaluate whether the operative savings can translate into surgical cost savings.

CONCLUSION

Condylomatosis anogenital, is an STD, very frequent in the population of risk and it can show in multiple ways, nevertheless the giant (GCA) variety, is at the present time exceptional. Usually, is a benign lesion, but they can transform in to malignant. The diagnosis is fundamentally clinical. The surgical extirpation is the treatment of choice. The ultrasonic scalpel offers a bigger security and effectiveness than the surgical traditional techniques.

References

1. Chin-Hong PV, Palefsky JM. Human papillomavirus anogenital disease in HIV-infected individuals. *Dermatologic Therapy* 2005;18:67-76.
2. Chu QD, Vezeridis MP, Libbey NP, Wnaebo HJ. Giant

- codyloma acuminatum (Buschke-Lowenstein tumor) of the anorectal and perianal regions. *Analysis of 42 cases. Dis Colon Rectum* 1994; 37:950-957.
3. Creasman C, Haas PA, Fox TA Jr, Balazas M. Malignant transformation of anorectal giant condyloma acuminatum (Buschke-Löwenstein tumor). *Dis Colon Rectum* 1989; 32:481-487.
4. Byars RW, Poole GV, Barber WH. Anal carcinoma arising from condyloma acuminatum. *Am Surg* 2001;67:469-472.
5. Heinzerling LM, Kempf W, Kamarashev J. Treatment of verrucous carcinoma with imiquimod and CO2 laser ablation. *Dermatology* 2003; 207:119-122.
6. Hyacinthe M, Kerl R, Coppola D, Goodgame T, Redwood W, Goldenfarb P, Ohori NP, Marcet J. Squamous-cell carcinoma of the pelvis in a giant condyloma acuminatum: use of neoadjuvant chemoradiation and surgical resection: report of a case. *Dis Colon Rectum* 1998; 41:1450-1453.
7. Mestrovic T, Cavcic J, Martinac P, Turcic J, Zupancic B, Cavcic AM, Jelencic Z. Reconstruction of skin defects after radical excision of anorectal giant condyloma acuminatum: 6 cases. *J Eur Acad Venereol* 2003; 17:541-545.
8. El Mejjad A, Dakir M, Tahiri M, Attar H, Cherkaoui A, Araki A, Aboutaieb R, Meziane F. Giant Condyloma Acuminata - Buschke Lowenstein tumor (report of 3 cases). *Prog Urol* 2003; 13:513-517.
9. Ilkay AK, Chodak GW, Vogelzang NJ, Gerber GS. Buschke-Lowenstein tumour: Therapeutic options including systemic chemotherapy. *Urology* 1993; 42: 599-602.
10. Boddy SAM, Ramsay JWA, Carter SStC, Webster PJR, Levison DA, Whittlec HN. Tissue effects of an ultrasonic scalpel for clinical use. *Urological Research* 1987; 15:49-52.
11. Cordon C. A randomized, prospective, parallel group study comparing Harmonic Scalpel to electrocautery in thyroidectomy. *Surgery* 2005; 137:337-341.
12. Fukuto Maruta MD. Use of the armonic scalpel in open abdominal perineal surgery for rectal carcinoma. *Dis Colon Rectum* 1999; 42:540-542.
13. Sinha UK, Gallagher LA. Effects of steel scalpel, ultrasonic scalpel, CO2 laser, and monopolar and bipolar electrosurgery on wound healing in guinea pig oral mucosa. *Laryngoscope* 2003; 11:228-236.
14. Sood S, Cobridge R, Powles J, Bates G, Newbwgin CJR. Effectiveness of the ultrasonic harmonic scalpel for tonsillectomy. *Ear Nose Throat J* 2001; 80:514-518.

Author Information

J. Carvajal Balaguera

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

S. Oliart Delgado de Tórres

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

M. Martín García-Almenta

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

J. Camuñas Segovia

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

L. Peóla Gamarra

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

P. Gómez Maestro

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

P. Fernández Isabel

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

S. Viso Ciudad

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

A. Prieto Sánchez

Assistant surgeon, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela

C. M. Cerquella Hernández

Chief of the service, General And Digestive Surgery Service, Hospital Central De La Cruz Roja San Jose Y Santa Adela