

New approach in preventing infection after cervical high grade squamous intraepithelial lesions treatment

Abstract

Most of the cervical high grade lesions are now treated in the outpatient setting. Generally, the procedure is considered to have low surgical morbidity however, little is known about perioperative infection rates following this procedure. In order to reduce postsurgical risk of infection and patient discomfort, and to minimize the post infection complication or scarring of the cervix, application of chlorhexidine vaginal suppositories with hyaluronic acid after cervical surgical treatment has been evaluated. The low rate (1.4%) of post-surgical infection in this series is due to the application of chlorhexidine vaginal suppositories after cervical surgical treatment in an Ambulatory Surgery Center qualified infection-prevention procedures. Noteworthy, the satisfactory colposcopy with the definition of the entire squamo columnar junction at the first follow-up demonstrates that preventing infection may aid to achieve an optimal tissue repair with a consequent satisfactory postsurgical diagnostic procedure. In our experience, the chlorhexidine 0.2% vaginal suppositories regimen displays no reported harms, scarce bacterial resistance, and good patient compliance and permits to reduce the postsurgical infection minimizing the patient discomfort after preinvasive cervical cancer treatment.

Keywords: cervical cancer, LLETZ, conization, HSIL, infection, complication after LLETZ, LEEP

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Abbreviations: HSIL, high grade squamous intraepithelial lesions; LLETZ, large loop excision of the transformation zone; ASC, ambulatory surgery center

Introduction

The high sensitivity of the diagnostic procedures now available in cervical cancer screening, as liquid-based cytology, permits to diagnose an ever greater number of preinvasive lesions of the cervix (High Grade Squamous Intraepithelial Lesions-HSIL). The increasing number of women in reproductive age presenting these lesions requires a conservative approach. The surgical technique of large-loop excision of the cervical transformation zone (LLETZ) proposed by Prendiville is to be considered the gold standard in surgical therapy of HSIL. Even this treatment is now widespread accepted and diffuse, the procedure in itself is not exempt from morbidity. The most common complications are pre and postoperative hemorrhages, infections, and cervical stenosis. Particularly, bacterial load in HSIL affected women is reported up to 65% of patients.¹ However, little is reported in the literature about prevention of infection following this procedure in an Ambulatory Surgery Center (ASC) setting,² even if local infection after surgery for cervical HPV lesions is reported up to 8% in some series.^{3,4} In order to reduce postsurgical risk of infection and patient discomfort, and to minimize the post infection complication or scarring of the cervix, application of chlorhexidine vaginal suppositories with hyaluronic acid after cervical surgical treatment has been evaluated.

In the Ambulatory Surgery Center of the Lower Female Anourogenital Network of ASLTO4 in Chivasso, Italy, 2004 women have undergone the LLETZ procedure for cervical High Grade Squamous Intraepithelial Lesions (HSIL) with HR-HPV types, between January 2015 to may 2016. The mean age of the patients

was 40yrs (24-64yrs, median 42yrs). No patients revealed cervico-vaginal clinical infection at the moment of the surgery, evaluated by a preoperative colposcopy. The procedure was conducted in a dedicated operating room according to the standard precautions for operating suite. Vaginal cleansing before operation was performed with chlorhexidine 2% solution. No oral antibiotic prophylaxis was adopted. The LEETZ was performed through a standard procedure with a loop electrode attached to an electrosurgical unit. Hemostasis of bleeding sites and ablation of ectocervical margin was achieved by a 5mm large ball electrode. The excision was performed in order to include the transformation zone and the endocervical canal. No Monsel's paste was applied in the cervical crater after the procedure. Patients were advised to avoid sexual intercourse and vaginal douches for 4weeks. Starting from the fifth day after surgery chlorhexidine 0.2% vaginal suppositories were self-administered once daily for 10days. Therapy timing was decided to extend the antiseptical action of the solution used in pre-surgical vaginal cleansing. A pap-smear and colposcopy to identify the healing process was conducted 30days after LLETZ in all the patients.

Among the 204patients, only 3(1.4%) showed clinical infection with vaginal discharge and pruritus in the first 30days after surgery. Particularly, all the patients revealed infection after 20days. At the first follow-up cytology showed bacterial load and clue cells. Clinical evaluation revealed a vaginal pH>4.5, with a vaginal discharge. These patients were submitted to 5days vaginal antibacterial treatment with metronidazole and clotrimazole, with symptoms relief. Regarding pain, no reliever was necessary after the procedure. VAS score was 2 in mean at the end of the procedure and 0 at the discharge. Colposcopy after surgery revealed no cervical stenosis, permitting a good evaluation of the cervical canal and the squamo columnar junction.

Conclusion

According to our experience, chlorhexidine 0.2% vaginal suppositories regimen represents an effective prophylactic treatment in preventing post-LLETZ cervico-vaginal infection. The low rate (1.4%) of post-surgical infection in our series may be due either to the application of chlorhexidine vaginal suppositories after cervical surgical treatment or to the ASC-qualified infection-prevention procedures. Noteworthy, the satisfactory colposcopy with the definition of the entire squamo columnar junction at the first follow-up demonstrates that preventing infection may aid to achieve an optimal tissue repair with a consequent satisfactory postsurgical diagnostic procedure. In our experience, the chlorhexidine 0.2% vaginal suppositories regimen displayed no reported harms, scarce bacterial resistance, and good patient compliance.

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Conflict of interest

The author declares no conflict of interest.

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