
Experience With Versapoint, A Bipolar System For Intra-Uterine Surgery

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Abstract

We evaluated the efficacy and safety of the Versapoint bipolar vaporizing system during hysteroscopic treatment of 30 women with endometrial polyps and submucosal leiomyomas. This system has been found effective in removal of submucosal leiomyomas and broad based endometrial polyps that probably could not have been done with a traditional monopolar resectoscope.

INTRODUCTION

Since the 1970's operative hysteroscopy has been used as a clinical tool to treat intrauterine septa, adhesions, myoma and polyps in women with abnormal uterine bleeding, infertility or recurrent pregnancy loss. Most of these cases have been treated with hysteroscopic scissors, laser fibres or monopolar resectoscope using electro-surgical generators.

In spite of this, only a small number of gynaecologists are beginning to perform therapeutic surgical procedures hysteroscopically. There are several explanations for this.

1. These instruments require dilatation of cervix up to 7 or 9 French, with the risks of laceration of cervix & perforation of uterus with subsequent increase in the incidence of cervical incompetence later.
2. The use of monopolar electrode, which requires non-electrolyte solution to distend the uterine cavity, may result in genital tract burns. Excessive absorption of these solutions has been reported to cause life-threatening hyponatremia with associated encephalopathy, low level of intracellular potassium and cardiac decompensation.

Although ND: YAG laser, which can be used in normal saline, is prohibitively expensive for many centres. The bipolar electro-surgical device (Versapoint) used in this study has a diameter of 5 French and is suitable for the working channel of 5.0-5.5 mm small hysteroscope. Since

this device is used in an environment of normal saline, distension with this physiological fluid avoids most of the risks of electrolyte imbalance. So the beneficial safety issues are use of physiological saline and the bipolar electrical aspect of the instrument

METHODS

The Versapoint electro-surgical system is designed for hysteroscopic removal of myoma polyps, intrauterine adhesiolysis & correction of septate uterus.

It consists of an electro-surgical generator, a foot switch & 3 types of electrodes. The flexible coaxial bipolar electrode, which is 1.6mm in diameter & 36mm long, is inserted into the 5-French working channel of the 5.5 mm continuous flow hysteroscope. The electrodes have 3 different tip configurations. Each of these is most suitable for a particular task- ball for coagulation, the twizzle for cutting & the spring for vaporization. The generator provides power settings from 1- 200W. The electrode typically extends no more than 8 mm beyond the hysteroscope and the surgical effect is visualized through the hysteroscope with light source illumination.

Before hysteroscopic surgery, every patient underwent ultrasound examination & diagnostic hysteroscopy. All the procedures were done under general anaesthetic in this series. The fluid balance was monitored during all procedures. In this series, no adverse effects were encountered with the device.

RESULTS

In our series, 30 women were scheduled for hysteroscopic surgery. Out of these, 25 presented with the post-menopausal bleeding, 2 with menorrhagia, 2 with infertility & 1 with perimenopausal irregular bleeding.

Endometrial polyp was present in 20 cases, while 10 cases had submucous leiomyoma diagnosed by prior diagnostic hysteroscopy & ultrasound examination.

The size of polyp/fibroid varied from 3-5 cm. The duration of surgery varied from 15 to 30 minutes, depending upon the size of polyp/fibroid.

The results, as summarised in the table below, are as follows:

- No further problems after removal of polyp/fibroid in 17 (57%) women.
- Five out of 30 (17%) underwent hysterectomy. The reasons being -
 - Complex atypical hyperplasia on histological examination of polyp in 3 cases
 - Patient's request due to recurrent episode of polyp formation in 1 case
 - Large fibroid measuring about 6 cm, that could not be resected in 1 case
- Endometrial ablation in 1 woman (3%) (menorrhagia)
- In our study, 7 women (23%) were readmitted with postmenopausal bleeding & they all underwent repeat hysteroscopy. The findings were as follows-
 - Normal in 4 women.
 - Stalk of polyp removed in 1.
 - Recurrence of polyp was found in 2 cases, which were removed.

The above results are summarised in the table below.

Figure 1

Table 1: 30 Patients Underwent Versapoint Surgery

TREATMENT OPTION	No. OF PATIENTS
No further treatment needed	17
Needed hysterectomy	5 Complex hyperplasia on histology 3 Recurrence of polyp 1 Big fibroid/incomplete resection 1
Endometrial ablation	1 Persistent menorrhagia
Recurrence of PMB	7 Hysteroscopy & polypectomy 2 Removal of stalk of polyp 1 Hysteroscopy ⇒ Normal 4

DISCUSSION

Bipolar normal saline field electrosurgery, with the 5-French electrode used in the study, appeared to be safe. Because of the use of small hysteroscope, dilatation is seldom required.

This procedure can be done under local anaesthetic, which will be beneficial in women who are at greater risk for general anaesthetic.

Use of normal saline as a distending medium avoids the complications, mainly electrolyte imbalance which is experienced with non-electrolyte solutions such as glycine. But this does not preclude complications associated with fluid overload due to excessive fluid absorption like cerebral & pulmonary oedema. Therefore fluid balance should be closely monitored throughout the procedure.

Perforation probably will occur with the same frequency as with the use of any other intrauterine instruments, but electrical injuries from the activated versapoint tip may not occur because the tip must be bathed in a saline environment for the circuit to be completed.

CONCLUSION

We conclude that Versapoint can be considered for the treatment of intrauterine lesions in selected group of patients. We can avoid hysterectomy in a fair proportion of women, especially those with broad base intrauterine polyp & submucous fibroid. It has a short learning curve especially for those experienced in operative hysteroscopy, and can be

used under local anaesthesia in out patient department, as it requires minimal cervical dilatation. This makes it safer for the patients who cannot have a general anaesthetic due to associated co-morbidities. In large intrauterine lesions (>5cm), it may not be ideal due to the length of time required to complete the procedure and risk of excessive fluid absorption; however, we did not have any major complication in our series.

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References

- r-0. Kung RC, Vilos GA, Thomas B, Penkin P. A new bipolar system for performing operative hysteroscopy in normal saline. *J Am Assoc Gynecol Laparosc*; 1999, 6(3): 331-336
- r-1. Loffer FD. Preliminary experience with the versa point bipolar resectoscope using a vaporizing electrode in a saline distending medium. *J Am Assoc Gynecol Laparosc*; 2000, 7(4): 498-502
- r-2. Marwah V, Bhandari S. Diagnostic and interventional microhysteroscopy with use of the coaxial bipolar electrode system. *Fertility and sterility*; 2003, 79: 413-417
- r-3. Vilos GA. Intra uterine surgery using a new coaxial bipolar electrode in normal saline solution (versa point*): a pilot study. *Fertility and sterility*; 1999, 72:740-743
- r-4. Vleugels MPH. Normal saline field bipolar electro surgery in hysteroscopy: report of the first 163 cases. *Gynaecological Endoscopy*; 2001, 10, 349-353

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