

Non-suture Conization with Monsel's Solution Pack:A Preliminary Report of 3 Cases

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Abstract : *Cervical conization is a common gynaecologic operation with adventitious serious complications. The major complication is hemorrhage. Traditionally, hemostasis is done by suture technique. In this report, cold knife conization followed by vaginal pack soaked with Monsel's solution was done in 3 cases with CIN and unsatisfactory colposcopy. The operative time was less than 6 minutes and the intraoperative blood loss was 100 ml or less. There was no immediate or delayed bleeding that required further treatment and also no other complication after 6 weeks of follow-up. This method is quite simple and effective. A further study involving a large series of patients to assess the short and long-term effects of this method is recommended. (Thai J Obstet Gynaecol 1990;2: 111-115.)*

Key words : conization, Monsel's solution

Cervical conization has for long been an accepted method for both diagnosis and treatment of cervical intraepithelial neoplasia (CIN)⁽¹⁻³⁾. Most gynaecologists consider this operation as a minor operation, but it has been called "a formidable operation" with considerable and serious complications especially bleeding⁽³⁻⁶⁾. The suture technique is traditionally used for hemostasis. The use of a vaginal pack soaked with Monsel's

solution (Ferric subsulfate) was reported to be an effective method in controlling hemorrhage and it was easier and quicker to perform than the suture technique⁽⁷⁾. This report presents the experience of the first 3 cases of conization using vaginal pack with this styptic agent.

Materials and Methods

Three cases of CIN with unsat-

isfactory colposcopy were further investigated with cold knife conization between January 9, 1990 and February 13, 1990. They were routinely admitted one day before the operation. Perineal shaving, enema and fasting over night were ordered.

In the operating room, the patient was placed in a lithotomy position. The vaginal toilet was done with surgical soak scrub and antiseptic paint. The conization was performed with a No.11 blade without any local vasoconstrictor. The size of the cone base depended on the non-stained area after a Schiller test. The apex of the cone was aimed to include majority of the cervical canal, followed by endometrial curettage. The hemostasis was done by packing the cone bed and upper vagina firmly with a 3cm wide gauze roll with its tip previously dipped in Monsel's solution. The use of Monsel's solution was restricted as much as possible to the cone bed rather than the vagina. An indwelling catheter was not used since packing was limited only to the upper vagina. There was no urinary problem postoperatively in all three cases.

The Monsel's solution was prepared and supplied from the Division of Pharmacy of this institution⁽⁸⁾.

The operative time was recorded. The blood loss during the operation was determined by weighing swabs. The cone size was measured before fixation of the specimen.

The pack was removed on the following morning. After discharge, the patients were given an appoint-

ment for the follow-up at 2 and 6 weeks. They were assessed according to the vaginal discharge or bleeding and infection.

Results

The clinical data of the patients are presented in Table 1. Their ages were 32, 36 and 47 years and parity of 2, 1 and 8. All practised no contraception. The conization was done on days 16, 20 and 22 of the cycle. General anaesthesia was used in two cases. The other was done under epidural nerve block.

Table1 Clinical findings of the patients

	Case I	Case II	Case III
Age	32	36	47
Parity	2	1	8
Contraceptions	no	no	no
Operative days of cycle	16	20	22
Anaesthesia	general	epidural	general
Cone width (mm)	30	20	20
Cone length (mm)	10	20	10
Operative time (minutes)	5	5	5.40
Intraoperative blood loss (ml)	100	50	30
Hospital stay (days)	3	2	2
Early and delayed bleeding	no	no	no

The cone width was between 20 and 30 mm, and the cone length between 10 and 20 mm. The operations were finished within 6 minutes in all cases. The blood loss varied

from 30 to 100 ml. Two cases were allowed to return home on the first postoperative day. The first case stayed one more day for observation to make sure there was no untoward effects in our first experience.

No early or late hemorrhage was found in all cases. But all had experienced vaginal discharge sometimes with blood staining or tiny pieces of dark brown material for one to two weeks. At 6 weeks review, all portio vaginalis were found short, but completely epithelialized. No febrile morbidity or re-admission for other complication was noted.

Discussion

Although the general acceptance of colposcopy has decreased the need for diagnostic conization and CIN was also treated effectively by local ablative methods such as the carbon dioxide laser, electrodiatherapy, cold coagulator or cryosurgery⁽⁹⁻¹²⁾. The technique of colposcopy requires a competent colposcopist who required a rigorous period of training and significant experience, while the local ablative methods require competent colposcopists and special instruments which can be very expensive. Cold knife conization is still one of the more commonly performed gynaecologic operations for both diagnostic and therapeutic purposes. Because of its major complication is hemorrhage intraoperatively and postoperatively, several techniques of hemostasis have been described, these include variation

of suture techniques and/or cryosurgery, use of vasoconstrictor, antifibrinolytic agent, Surgicel gauze and Monsel's solution^(7,13-16).

The hemostatic technique used in this series was the Monsel's solution pack as described by Gilbert et al⁽⁷⁾. The hemostasis was all satisfactory. The advantage of this technique is that it needs no suturing and packing is easy to be performed. So it can be done quickly, it took less than 6 minutes to accomplish the operation in this series. And the blood loss during the operation was 100 ml or less. The secondary hemorrhage usually occurred on the 6 to 7 days after conization^(4,5). The inflammatory reaction associated with the presence of suture material in the healing cone bed was suggested to have caused this problem⁽⁷⁾. None of the cases in this series developed secondary hemorrhage.

Monsel's solution is a styptic or topical hemostatic agent widely used following skin or mucosal biopsies⁽⁸⁾. When applied to the cervix, it penetrated denuded mucosa and produced coagulation necrosis to a maximum depth of 0.6 mm. Foci of surface necrotic tissue persisted up to two weeks post Monsel's and impeded rapid re-epithelialization⁽¹⁷⁾. Because the cervix is a highly vascular organ, bleeding usually occurs following cutting of the cone. The application of Monsel's solution alone could not stop the bleeding. Pressure effect on the cone bed by the gauze pack reduced or stopped the hemorrhage and this styptic agent could be absorbed into

the denuded area and caused coagulation necrosis.

In addition, this technique is an "open" method of conization, which is another advantage. An "open" cone had less long-term effects i.e. menstrual symptoms, cervical stenosis and the follow-up with colposcopy or cytological study was more satisfactory than the "closed" one^(7,16). So it is beneficial for conservative treatment of CIN in women who need further fertility.

In conclusion, the hemostasis used in this series is a simple and effective method. However, a prospective randomized trial involving a large series of patients should be studied to assess the short and long-term effects.

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