

Endometrial Polyp Removed by a Manual Hysteroscopic Tissue Removal Device

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Abstract

We report one of the first cases where an endometrial polyp was removed using a manual hysteroscopic tissue removal (HTR) device. The case showed its feasibility with potential reduction in the required setup time and tubing required compared to routine HTR device. This technique is ideal in the removal of endometrial polyps, particularly within the outpatient settings.

Keywords: Endometrial polyp, hysteroscopic surgery, vaginal bleeding

INTRODUCTION

Endometrial polyps are associated with menstrual irregularities such as heavy and irregular menstrual bleeding (IMB). Despite malignancy is uncommon among polyps, malignancy can occur from 0% to 12.9% depending on the population studied.^[1] With all these in consideration, the removal of polyp for diagnosis and treatment is regularly performed.

In recent years, polypectomy using a hysteroscopic tissue removal (HTR) system has gained popularity. However, all of such techniques are associated with the use of an electric motor-driven mechanical morcellation device with a machine-driven fluid pump. In this case report, we report one of the first polypectomies performed using a manually driven HTR device instead of one being driven via an electric motor and distension fluid introduced purely via gravitational pressure.

CASE REPORT

A 56-year-old premenopausal female presented with a history of on and off per vaginal intermenstrual bleeding

for over a year. Transvaginal ultrasound showed a thickened endometrium measured 1.3 cm with appearance suggestive of an endometrial polyp. A flexible hysteroscopy performed without anaesthesia confirmed of an endometrial polyp that measured 1cm and arise from the left lower wall of the uterus. The patient then underwent a hysteroscopic resection of polyp using a manually driven HTR device (MyoSure® Manual Tissue Removal Suite-Hologic® USA) under general anaesthetics. 500 ml bag of normal saline was used as distending media and was driven purely by gravitational force as routine diagnostic hysteroscopy. Diagnostic hysteroscopy confirmed the presence of the polyp [Figure 1], and with the use of the device, the polyp was removed completely. The procedure (including anaesthetization, setting up of patient and device equipment) took a total of 15 minutes. The morcellation of the polyp itself took approximately 3 minutes [Video 1]. Time of morcellation of the polyp was 2 min with no residual polyps left remain. There was 100 ml saline of fluid deficit. The patient went home on the same day. Follow-up at 3 months showed no further IMB bleed. Pathology from the procedure was confirmed as a benign endometrium polyp with surrounding inactive endometrium.

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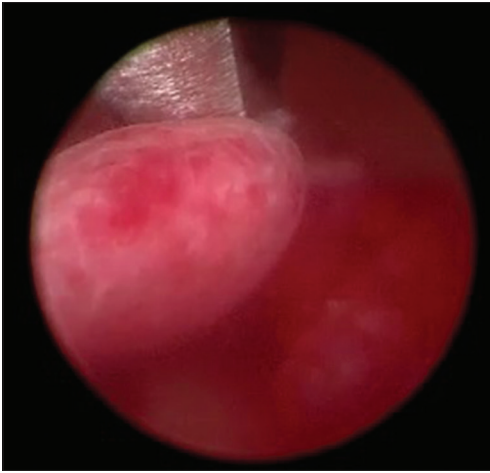


Figure 1: Hysteroscopic view of endometrial polyp

DISCUSSION

Blind removal of endometrial polyp with a polyp forceps without the use of hysteroscope under direct vision only yielded 41% of complete polyp removal. Malignant cells at the base of the polyp can be missed while the recurrence rate can be as high as 15%.^[2]

Resections under direct vision such as using cold scissors, diathermy resectoscopes, or HTRs are safe, simple, and superior to blind techniques. When compared to resection using the resectoscope, HTRs have shown to reduce the mean operative time;^[3,4] and associated with less complication risks.^[5,6] It is also more simple and easier to use compared to fine hysteroscopic scissors. When performing any hysteroscopic surgery, absolute fluid input and output measurement is vital to prevent excessive fluid absorption. This is usually achieved with a motorized fluid pump which require a separate machine and set up. According to The American Association of Gynecologic Laparoscopists (AAGL), it is recommended that the absolute fluid deficit should remain at 2500 ml when normal saline is used as distending media.^[7] However, removing endometrial polyps using the manual HTR device generally uses very limited amount of fluid throughout the entire procedure. The majority of cases, maximum fluid input of 500 ml would have been enough to complete the procedure. Hypothetically, if all the fluid input was absorbed without deficit, the total amount of fluid deficit remained far below the AAGL's recommended value. Equipment setup, with the electric pump in particular, may take a considerable amount of time, and extra tubing may also be required. With the manual HTRs, motorised fluid pump is not required. Fluid delivery using gravitational fluid flow is all that is required. This reduces both operative time and cost and is ideal for removing polyps, especially in the outpatient settings.

The only disadvantage of this is the fact that the hysteroscope is 6 mm diameter and hence may be uncomfortable for the patient when dilatation is required especially if no anesthesia is used. The other concern was whether the operator will generate fatigue if the morcellation device is manually activated. During this case, the operator activated the device manually for <20 times. There was no fatigue generated, but it is important to accurately assess the pathology preoperatively. Manual morcellation device should not be used for fibroids and very large polyps.

This case demonstrated the feasibility of removal of endometrial polyp using a manual HTR. It has also shown that machine-driven fluid pump and morcellators are not required for simple cases such as endometrial polyps. Although this case was done under general anesthetics, the ideal setup for this device would be in the outpatient or office settings with no anesthetics or under MAC.

Ethical statement

The ethical approval of this study is exempted by the Kowloon Central Research Ethics Committee.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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