

CASE REPORT

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Removal of a Large Endometrial Polyp: Hysteroscopic Morcellation

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ABSTRACT Endometrial polyps (EPs) are usually benign lesions and can cause vaginal bleeding, infertility, and rarely uterine malignancy. The hysteroscopic polypectomy is the gold standard for the surgical treatment but especially in large polyps hysteroscopic removal systems (morcellator) can offer some surgical benefits. Hysteroscopic removal systems (morcellator) uses mechanical rotating energy system with simultaneous tissue cutting and aspirating. In this case, a large EP was removed by hysteroscopic morcellator completely. The operative time, fluid deficit and visualization were satisfying.

Keywords: Uterine polyp; hysteroscopic surgery; hysteroscopic morcellation; resectoscope

Endometrial polyps (EPs) are usually benign lesions. The focal hyperplasia of the endometrial basal layer causes EPs and including irregular endometrial glands, stroma, and blood vessels.^{1,2}

The widespread use of transvaginal ultrasound, saline infusion sonography and hysteroscopy in the investigation of abnormal uterine bleeding in women have demonstrated that EPs may be diagnosed in 10-40% of women with such symptoms.¹

EPs may be small as 5 mm to extending filling the uterine cavity. They may be sessile or pedunculated, single or multiple. EPs are often detected between the ages of 40-49.³

During routine gynecologic examinations including transvaginal ultrasound, 1-12% of EPs are diagnosed in asymptomatic women.⁴

The gold standard for the surgical treatment of EPs is hysteroscopic polypectomy. As the hysteroscopic polypectomy is, in recent times, polypectomy using hysteroscopic tissue removal (HTR) system provided some advantages. In this case report, we aimed to dis-

cuss surgical treatment of large EPs with HTR system.

CASE REPORT

A 68-years-old, postmenopausal female P2G2 with hypertension and high body mass index, consulted to gynecology department for randomly detected endometrial cystic mass by computerized tomography.

The pelvic examination of the uterus was multiparous sized, mid-positioned, and free bilateral fornices. Transvaginal ultrasound showed a thickened endometrium measured 21 mm with cystic areas the appearance suggested EP with or without endometrial hyperplasia.

With regional anesthesia, the patient underwent hysteroscopic polyp resection. A flexible hysteroscopy performed for EP that measured 5 cm extending fundus to the left corneal area (Figure 1). HTR system was used for the procedure. Normal saline solution 500 mL bag was used as distending media and was driven as a routine diagnostic hys-

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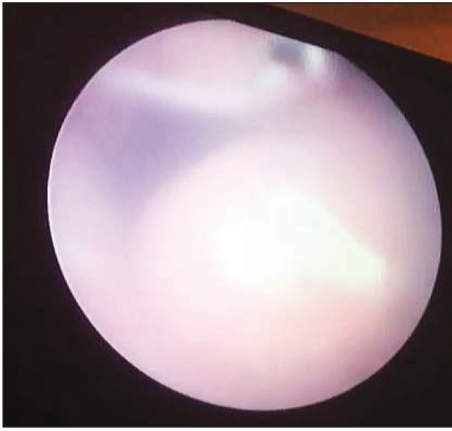


FIGURE 1: Endometrial polyp before surgery.



FIGURE 2: Endometrial polyp after surgery.

teroscopy. The operation time including set up the systems and completing the polypectomy is 15 minutes. The morcellation of the polyp took nearly 3 minutes. The uterine cavity checked for residual polyps, and no residue determined. There was 100 mL saline of fluid deficit. The 6 months follow-up showed no complaint. The pathology confirmed the procedure as a benign EP (Figure 2).

Since our study was a case report, ethics committee approval was not required. The permission to use the patient data was obtained at hospital admission.

DISCUSSION

Dilation and curettage known as a “blind procedure” for the removal of endometrial polyp has the probability of missed or uncomplete more than 50-85 of the cases.⁵

And malignant cells at the base of the polyps can be unnoticed, and the recurrence rate can be as high as 15%.⁶

Hysteroscopic resection of EPs with a loop electrode has been a useful and reliable procedure for surgeons. Hysteroscopic resection with a loop electrode needs a large diameter of a hysteroscope (7-9 mm outer diameter). Hysteroscopic morcellation procedure uses smaller diameter hysteroscopes (3-4 mm outer diameter). Using a small diameter of hysteroscope causes less cervical dilatation, less pain, and less anesthesia.⁷

Hysteroscopic resectoscope uses radiofrequency energy. Energy sources can be monopolar or bipolar depending on surgeon preference. Hysteroscopic resectoscope usage with monopolar surgery requires a nonconducting distension medias. Nonconducting medias such as glycine, sorbitol, or mannitol. Such distension media carry risks of fluid overload and electrolyte imbalance. Electrolyte imbalance can cause brain damage and deaths secondary to hyponatremia. Isotonic solutions such as normal saline and lactated Ringers can be used with bipolar energy sources.^{7,8}

The hysteroscopic morcellation procedure generally uses a very limited amount of fluid that remains far below the American Association of Gynecologic Laparoscopists (AAGL) recommendations. As long as the operation time fluid deficit of hysteroscopic technique is a significant risk. The complications of electrolyte imbalance caused by distension media are fever.⁹

As shorter procedure time means less fluid deficit related complications. A remarkable decline of the operative time with hysteroscopic morcellation is seen due to lower fluid deficit and it increases acceptability.¹⁰

Hysteroscopic morcellator allows simultaneous tissue cutting and aspirating. This procedure reduces operative time through preventing unnecessary loss of time by repeated insertion and extracting materials through endocervix.^{11,12}

In a study, the morcellation procedure demonstrated a 32% reduction in distention media used and a

reduction of 38% in operating room time. Thin strips of resected tissue or “chips” are disturbing the visualization during the hysteroscopic resectoscope procedure and need periodically removing from the uterine cavity that takes time. During the chip removing, vision is obscured and introduces a significant risk for uterine perforation. The hysteroscopic morcellation device cuts the tissue and aspirates it out. The vision is not interrupted by the battling tissue “chips”.¹³

The failure rate for hysteroscopic resectoscope usage is higher especially for large lesions that cause narrowing operating field. Partial or incomplete resection of the lesions with hysteroscopic resection can cause re-operations and insufficient tissue materials. As the hysteroscopic morcellator simultaneously cuts and aspirates the tissue results in better visualization and complete removal.¹⁴

The safety of both hysteroscopic techniques were confirmed by a low rate of complications and no significant complication rate was determined. In a meta-analysis, both techniques were compared with regard to complications including uterine perforation, vasovagal reactions, abnormal vaginal bleeding, and infection.

And no significant difference was detected between the two groups.¹⁵

This case demonstrated the feasibility of the hysteroscopic morcellator technique for large EPs. This procedure is effective, fast, and safe. The treatment of EPs using a hysteroscopic morcellator is an effective alternative to hysteroscopic resectoscope.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

This study is entirely author's own work and no other author contribution.

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