

Video Article

Hysteroscopic Treatment of Symptomatic Adenomyoma

Yu et al. Hysteroscopic Treatment of Symptomatic Adenomyoma

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Abstract

Hysterectomy has been the definitive treatment option for symptomatic adenomyosis and/or adenomyoma when medical or other conservative treatments have failed to control the symptoms. The conservative surgery has already developed as an alternative treatment because of the patients' increasing desire to preserve uterus. This video demonstrates a novel hysteroscopic treatment of symptomatic adenomyoma for the patients without fertility desire.

Keywords: adenomyoma, adenomyosis, hysteroscopy, hysteroscopic surgical procedures

Introduction

Adenomyosis is a kind of benign gynecologic disorder with the invasion of endometrial glands and stroma in the uterine myometrium which results in pelvic pain, dysmenorrhea, and menorrhagia (1). The disease may be diffuse or focal with adenomyoma. Hysterectomy has been known as the primary treatment for adenomyosis and/or adenomyoma (2).

Traditionally, adenomyosis would be found incidentally in specimens which is obtained from uterine biopsies or hysterectomy and/or percutaneous ultrasound-based biopsies. Modern diagnostic imaging techniques, such as magnetic resonance imaging (MRI), with the high accuracy in identifying this kind of pathology lead to the conservative uterine-sparing treatments of adenomyosis and/or adenomyoma being efficacious and feasible. (3,4)

This video consists the hysteroscopic surgical procedures of two women with adenomyoma (Figure1) requesting surgical management for the relief of symptoms and the preservation of uterus but with no desire of future fertility. These two patients both suffered from heavy menstrual bleeding and severe dysmenorrhea. We used saline solution to dilate the uterine cavity and set the intrauterine pressure at 120mmHg. The operation was performed with a transcervical resection resectoscope which is equipped

with a 3-mm and 5-mm wide loop. The surgeon dilated the cervix to 9 mm, then used a cutting loop to resect the lesions repeatedly and progressively. With color Doppler ultrasound guidance, the first step was evaluating features of the uterine cavity. Then the surgeon used a cutting loop to resect the lesions progressively (Figure2). The operation was completed with the appearance of the pink fasciculate structure of the myometrium. Tissue fragments were removed at intervals using ovum forceps. The specimens were sent for histological analysis (Figure3).

Following-up were performed for 2 times at 3-months interval. The patient menstruated regularly. The postoperative visual analogue scale (VAS) scores of menstrual blood volume and dysmenorrhea appeared to decline substantially. The uterine volume was evaluated by MRI 6 months later and was reduced by approximately 33%.

Uterine perforation is the greatest risk associated with hysteroscopic resection surgery. For the long duration of operation, the surgeon should pay more attention to fluid management and prepare with solutions when fluid overload or hyponatremia is suspected. Hysteroscopic excision of uterine adenomyoma has the following benefits: the uterine is reserved and the symptoms of adenomyoma get improvement; the minimally invasive operation is short-time taking and the patients recovers quickly. Therefore, hysteroscopic excision can become as an optional and effective conservative treatment of adenomyoma.

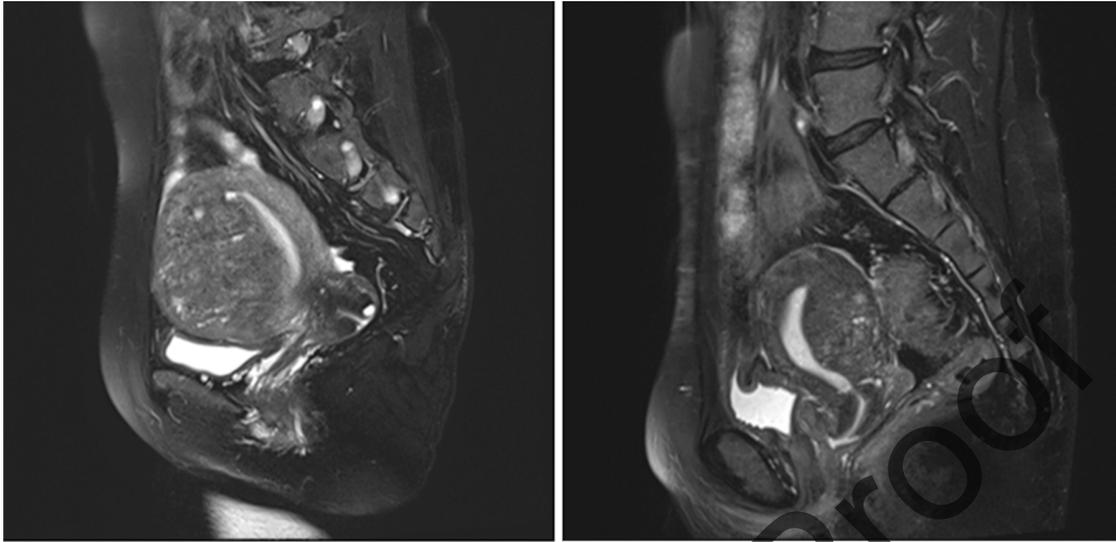
Ethics: Study ethics approval was obtained from the institutional ethics committee of the International Peace Maternity and Child Health Hospital in Shanghai, China, on 19-April 2016. The approval number is GLW (2015) 19.

Conflict of Interest: No conflict of interest was declared by the authors.

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References

1. Xia W, Zhang D, Zhu Q, Zhang H, Yang S, Ma J, et al. Hysteroscopic excision of symptomatic myometrial adenomyosis: feasibility and effectiveness. *BJOG : an international journal of obstetrics and gynaecology*. 2017 Sep;124(10):1615-20. PubMed PMID: 28544260.
2. Tsui KH, Lee WL, Chen CY, Sheu BC, Yen MS, Chang TC, et al. Medical treatment for adenomyosis and/or adenomyoma. *Taiwanese journal of obstetrics & gynecology*. 2014 Dec;53(4):459-65. PubMed PMID: 25510683.
3. Grimbizis GF, Mikos T, Tarlatzis B. Uterus-sparing operative treatment for adenomyosis. *Fertility and sterility*. 2014 Feb;101(2):472-87. PubMed PMID: 24289992.
4. Di Spiezio Sardo A, Calagna G, Santangelo F, Zizolfi B, Tanos V, Perino A, et al. The Role of Hysteroscopy in the Diagnosis and Treatment of Adenomyosis. *BioMed research international*. 2017;2017:2518396. PubMed PMID: 28852646. Pubmed Central PMCID: 5568620.



A

B

Figure 1. MRI imaging of adenomyosis

The adenomyotic lesions in case one were located in the anterior uterine wall (A) and the lesions in case two was located in the posterior wall (B).

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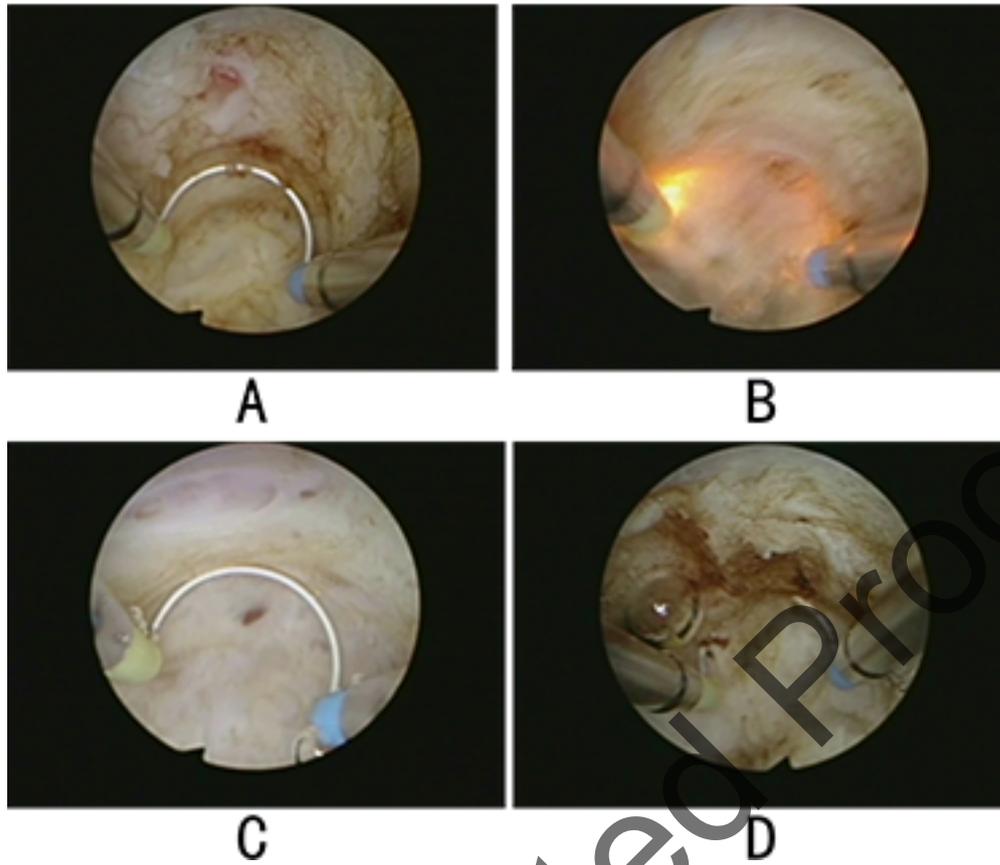


Figure 2. Surgical procedure

In case one, upon cutting the endometrium covering the adenomyotic lesions (A) pink ectopic endometrial lesions in the myometrium were exposed. (B) The ectopic endometrium and adenomyotic lesions were gradually excised from the myometrium. (C) During the resection of lesions, several intramural microcysts with wide base were revealed. (D) Opening the microcyst resulted in the outflow composed mostly of old blood.

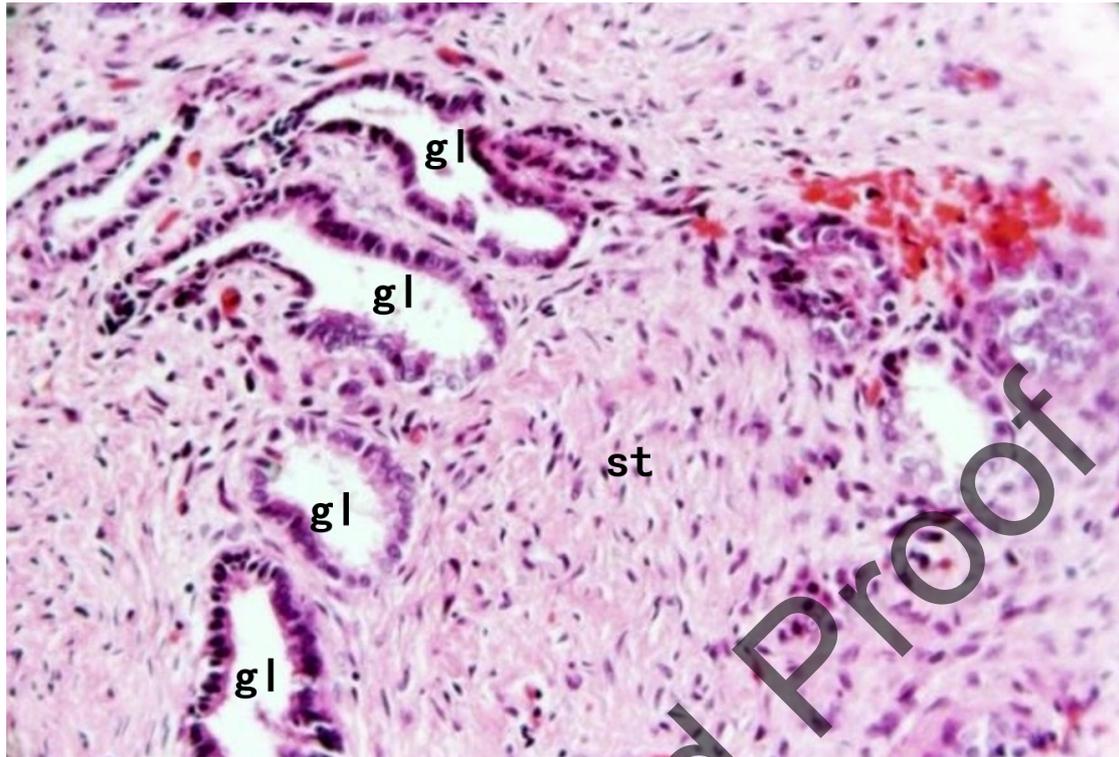


Figure 3. HE staining of adenomyosis.

St, stromal cells; gl, glands

Uncorrected Proof