

# Outpatient Hysteroscopic Emptying of a Submucosal Uterine Cystic Lesion

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## ABSTRACT

**Background:** Uterine cystic neoforations are rare, but they should always be investigated to differentiate a benign from a malignant pathology. Transvaginal ultrasonography, MRI, and blood tests are the main investigations for diagnosing these lesions, avoiding over- or undertreatment. Hysteroscopy might represent a helpful tool both for its diagnostic and therapeutic properties.

**Methods:** We report the hysteroscopic emptying of a cystic-degenerated leiomyoma with a 5-Fr flexible needle inserted through the operative channel of a 5-mm continuous-flow operative office hysteroscope in an outpatient setting.

**Results:** The cystic lesion was successfully emptied. The histopathological result of the target biopsies performed on the cystic wall was cystic degeneration of a leiomyoma.

**Conclusion:** This needle is normally used in gynecology to instill intrauterine local anesthesia under a hysteroscopic view. We adapted it to drain a fluid-filled lesion, identifying a further application of this instrument.

**Key Words:** Flexible needle, Hysteroscopy, Leiomyoma, Uterine cyst.

## INTRODUCTION

Cystic neoforations of the female reproductive system are very common in the ovarian tissue, while rare in the other organs.

The differential diagnosis of the uterine cystic mass includes congenital malformation, leiomyomata cystic degeneration, adenocystic tumor, adenomyosis, echinococcus cyst, and intramyometrial hydrosalpinges.<sup>1-4</sup>

We report the successful hysteroscopic emptying of a cystic-degenerated leiomyoma with a 5-Fr flexible needle (Karl Storz, Tuttlingen, Germany) in an outpatient setting.

## CASE REPORT

A 39-year-old female, para 4, was admitted to our department after complaining of severe lower abdominal pain for the last year. On physical and gynecological examinations, no pathological finding was detected. Transvaginal sonography (TS) revealed an intramural anechogenic lesion in the uterine fundus 18.2 x 19.6mm in size surrounded by a hyperechogenic ring (**Figure 1**). This cystic mass was suspected to be a gestational sac, but serum  $\beta$ HCG dosage was negative.

Tumor markers were within the normal range. An outpatient diagnostic hysteroscopy was performed. The uterine cavity was regular with the exception of an atypical area of vascularization, corresponding to the cystic mass detected on TS.

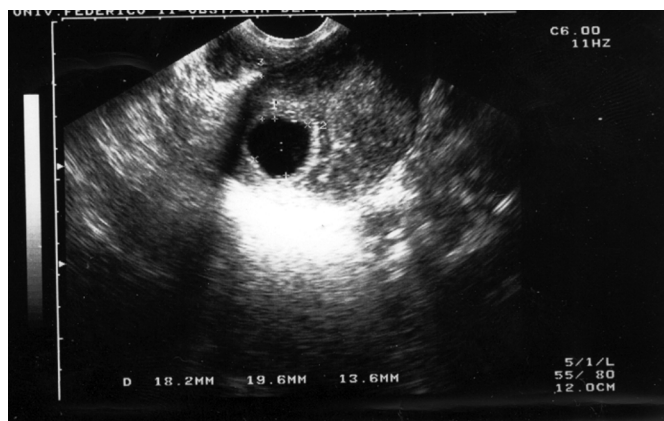
The patient was discharged with a diagnosis of suspicious adenomyosis and was advised to document her pain episodes in a diary. She was scheduled for a repeat TS and CA125 dosage after 3 months. Mefenamic acid was prescribed for further episodes of pain.

However, the patient was referred to the emergency room of our department nearly one month later following a severe episode of dysmenorrhea. Repeat TS revealed that the cystic mass had become submucosal. A repeat outpatient hysteroscopy was performed using a 5-mm continuous-flow operative office hysteroscope with a 2.9-mm rod lens (Bettocchi office hysteroscope, Karl Storz, Tuttlingen, Germany). The vaginoscopic approach (without speculum and tenacu-

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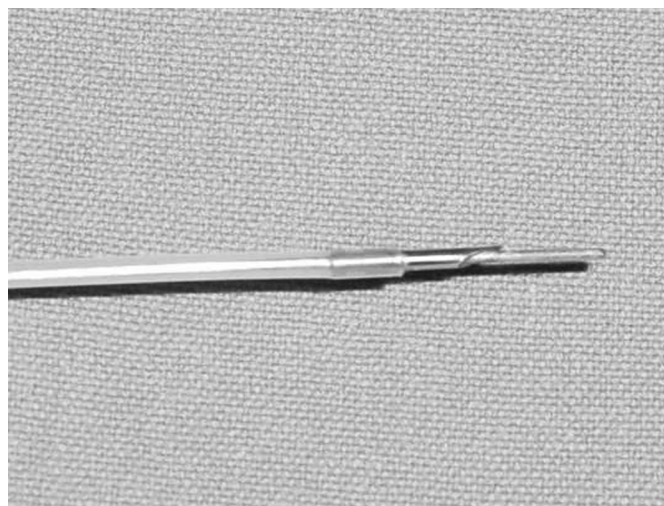
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**Figure 1.** Intramural anechogenic lesion (18.2 x 19.6 mm) in the uterine fundus surrounded by a hyperechoic ring.

lum) was used to improve the patient's compliance. Saline solution was used as the distending medium. Neither analgesia nor local anesthesia was administered to the patient.

A translucent lesion apparently blood filled was detected at the uterine fundus. Because the cystic wall was thin, the cyst was emptied by using a flexible needle (1.7 mm and 80 cm length; Karl Storz, Tuttlingen, Germany) introduced through the 5-Fr operative channel (**Figure 2**). Nearly 5 mL of hematic fluid were drained. Several target biopsies were performed on the cystic wall. The histopathological result was cystic degeneration of leiomyoma. A TS performed one month later showed that the anechogenic image in the uterus had completely disappeared. At the



**Figure 2.** Distal tip of the 5-Fr flexible needle (Karl Storz, Tuttlingen, Germany).

3-month follow-up visit, the patient's symptomatology was remarkably improved.

## DISCUSSION

Every uterine cystic mass should always be investigated to differentiate a benign from a malignant pathology.<sup>5</sup> Transvaginal ultrasonography, MRI, and blood tests (ie,  $\beta$ HCG and tumor markers) are the main investigations for diagnosing these lesions, avoiding over- or undertreatment.<sup>6-8</sup>

Hysteroscopy can be a helpful tool both for its diagnostic and therapeutic properties. Moreover, the possibility of performing target biopsies allows a histopathological diagnosis.

## CONCLUSION

In this report, we have described the possibility of emptying a blood-filled uterine submucosal lesion in an outpatient setting by using a flexible needle inserted through the 5-Fr operative channel of a 5-mm continuous-flow operative office hysteroscope.

The index needle is normally used in gynecology to instill intrauterine local anaesthesia under a hysteroscopic view. We adapted it to drain a fluid-filled lesion, identifying a further application for this instrument.

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