



Hysteroscopic removal of retained products of conception: historic approach or new iteration?

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Hysteroscopy has long been a gynecologist's tool for minimally invasive diagnosis and treatment of intrauterine pathology. Its use can run the gamut from direct visualization to operative removal of polyps and fibroids. Some other uses of hysteroscopy include removal of intrauterine devices, management of intrauterine adhesions (IUA), and removal of retained products of conception (RPOC). It remains a mainstay in the field of gynecology due to its minimal complications, cost effectiveness, and short procedural time (1).

This case report addresses hysteroscopic removal of RPOC using a 12-Fr spoon-shaped forceps. A 34 years old woman, who presented with abnormal menses 4 months after evacuated first trimester RPOC, was the subject of the study. Transvaginal ultrasound showed left angular RPOC along with IUA. After insertion of the hysteroscope, blunt adhesiolysis was performed using the 5-Fr spoon-shaped forceps, followed by dissection with cold scissors. This technique was also reported by Huang *et al.* as a method of adhesiolysis to better protect the endometrium, compared to resectoscopic techniques (2). The RPOC were then identified and removed with the 12-Fr spoon-shaped forceps. This procedure was performed under ultrasound guidance. A 12-Foley catheter was subsequently inserted into the uterine cavity and left inside for 2 weeks. The patient went home on hormonal therapy, estradiol 3 mg BID for 28 days, and progesterone 200 mg was added for the last 6 days. A follow-up hysteroscopy, 1 month later, revealed an almost normal uterine cavity (3).

Hysteroscopy remains the treatment of choice for IUA or Asherman's syndrome. Unlike blind curettage, hysteroscopy directly visualizes adhesions and allows for a more complete and safe removal of adhesions. Both blunt and sharp

dissection techniques have been used for lysis of adhesions in gynecologic surgery. As seen in this case report, when pathology is severe and uterine landmarks are obscured, hysteroscopic lysis of adhesions can be performed under ultrasound guidance or laparoscopy to decrease the risk of uterine perforation. An established method to prevent reformation of adhesions, as used by Zhang *et al.* in this case report, involves inserting an intrauterine balloon catheter to separate the opposing layers of the endometrium. It is also common practice to send patients home on a conjugated estrogen for 4 weeks to promote re-epithelialization, followed by adding a progestin the last week; however, the effectiveness of this method has not been established (4).

Fertility outcomes have been shown to be comparable when using Sodium hyaluronate and carboxymethylcellulose versus a foley catheter for adhesion prophylaxis (5). In this case report, both methods were used, as the top portion of the foley catheter was removed to insert hyaluronic acid gel into the uterine cavity. This case report is comparable to other studies in that it proves that hysteroscopic removal of RPOC is safe and effective. In fact, incomplete evacuation of RPOC has only been shown to be 1% in cases treated by hysteroscopy versus 29% by curettage (6).

Although not directly addressed in this study, the management of RPOC should always be based on patient presentation. A patient with RPOC can be managed either expectantly, medically, or surgically depending on her signs and symptoms. A surgical approach would be more fitting in a patient who is actively bleeding or has signs of infection. For patients who are hemodynamically stable with no active bleeding, expectant management or medical management is appropriate. In one study, two 800 mg doses of vaginal

misoprostol could completely evacuate the uterus in 80% of subjects with a first trimester missed abortion (7). Compared to curettage, hysteroscopic removal of RPOC is more precise, as it allows for direct visualization of tissue removal.

This case report is consistent with previous literature on RPOC. Being a case report, its scope and generalizability is limited. There are several disadvantages of operative hysteroscopy that were not addressed such as fluid management. Depending on the distention media used, a maximum fluid deficit should not be exceeded. In more complicated cases, such as those with dense adhesions, attention should be made not to exceed a 2,500 mL fluid deficit, if using normal saline. One of the strengths of this paper is that it describes the use of a 12-Fr spoon-shaped forceps to remove RPOC in the presence of adhesions. The authors state that previous literature only addresses removal of RPOC using electrical instruments and curettage. They also emphasize the safety of this approach for angular RPOC. However, this procedure occurred under ultrasound guidance, thus making it difficult to distinguish its safety from a curettage also performed under ultrasound guidance.

Hysteroscopy is a known treatment modality for RPOC. Compared to blind curettage, hysteroscopy has been shown to have lower rates of IUA and higher rates of subsequent pregnancies (8). Just as used in removal of foreign bodies, hysteroscopy can aid in providing a precise removal of tissue under direct visualization. This case report combines known treatment for IUA, followed by removal of RPOC with a 12-Fr spoon-shaped forceps. More studies are needed to delineate the safest and most effective instrument for removal of RPOC.

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