

Successful Pregnancy Following Hysteroscopic Adhesiolysis Of Severe Intrauterine Adhesions

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Abstract: *Asherman's syndrome is an intrauterine adhesions that frequently occurs as a result of trauma to the endometrial layer following intrauterine procedures. We report a case of 30 year old woman with previous history of curettage came with secondary amenorrhea and infertility. Hysteroscopic adhesiolysis was performed and directly followed by IUD insertion and hormonal treatment for 3 months. Following three cycles of regular menstruation, the IUD was removed. The patient then underwent ovarian stimulation and got conceived. The antenatal period was uneventful and Cesarean section was performed due to low lying placenta at 39 weeks of gestational age. Delivery process was complicated by placenta accreta that was successfully managed with intrauterine Foley catheter balloon tamponade and bilateral uterine artery ligation. Asherman's syndrome could result in successful pregnancy even in severe cases of adhesion. However, the pregnancy preceded by intrauterine adhesion may get complicated by abnormal placental implantation.*

Keywords: *Asherman's syndrome; Infertility; Hysteroscopic adhesiolysis; Placenta accreta*

1. INTRODUCTION

Asherman's syndrome or intrauterine adhesion (IUA) is a rare condition which first elaborated by gynecologist Asherman in 1948.¹ Asherman's syndrome frequently occurs as a result of trauma to the basal layer of endometrium following pregnancy-related curettage.^{2,3}

Amenorrhea (37%), hypomenorrhea (31%), and secondary infertility (43%) are the main presenting symptoms in women with intrauterine adhesions.¹ Hysteroscopy has been revolutionized the diagnosis and management of Asherman's syndrome and has become the standard route of surgery to restore the size and shape of the uterine cavity, normal endometrial function and fertility in women with Asherman's syndrome.⁴ Anatomical and functional restoration are the important measures in evaluating the success of hysteroscopic management.⁵ Hysteroscopic lysis of adhesion could restore normal menses in 84.5% patients and increase the pregnancy rate up to 33% in severe cases. Adhesion reformation as the major sequelae could occur in 3.1% - 23.5% after hysteroscopic treatment.^{1,5} Pregnancy after hysteroscopic treatment should be considered as high risk pregnancy and should be managed accordingly.⁵ We present a case of a woman with Asherman's syndrome that was successfully managed by hysteroscopy and resulted in pregnancy complicated by adherent placenta.

Case Report

A 30-year-old woman parity 0 came with secondary amenorrhea and infertility after curettage which performed 1 year earlier due to abortion. She had received hormonal therapy several cycles without any improvements. The patient did not have any other remarkable medical history except for curettage that was performed one year earlier. Physical and pelvic examination did not reveal any abnormalities. Intrauterine adhesion then was suspected solely based on the patient's medical history. We don't have any result of pre-operative ultrasound or hysterosalpingography.

Hysteroscopy using 2.9 mm rigid hysteroscope with 5 mm working channel then performed in March 2018 (under regional anesthesia and cervical dilation with misoprostol 100 µg 2 hours before procedure) revealed the extent of endometrial cavity obliteration from internal cervical ostium to uterine fundus, with dense, multiple adhesions (Figure 1). These features were suggestive of Asherman's syndrome and classified to stage IIIa intrauterine adhesions according to European Society of Hysteroscopy. Hysteroscopic adhesiolysis was then performed with 5 Fr scissor (Figure 1). Intrauterine device was then directly inserted and combined oral contraceptive pills treatment was started to prevent the reformation of IUA (Figure 2). The patient had resumption of her normal menstruation for three cycles. We didn't perform hysteroscopy for post-discharge follow up. Hormonal treatment was discontinued and IUD was removed after 3 cycles of menstruation. The patient then underwent ovarian stimulation treatment with clomiphene citrate begin on third day of her fourth menstrual cycle. The patient successfully got conceived and underwent a normal pregnancy.

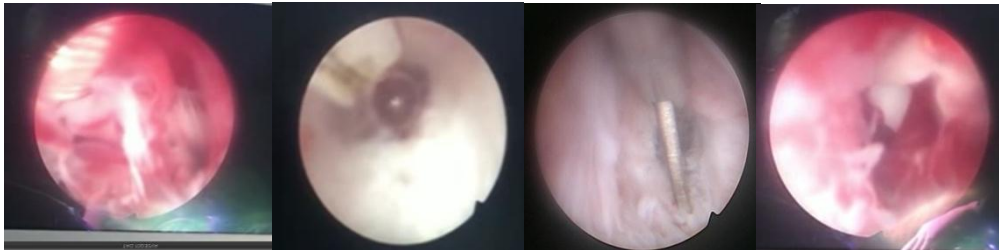


Figure 1. Hysteroscopic view of severe intrauterine adhesions and adhesiolysis using 5 Fr scissor



Figure 2. Transabdominal pelvic ultrasonography performed after hysteroscopic adhesiolysis and IUD insertion showing IUD in the endometrial cavity

The patient underwent elective cesarean section at 39 weeks of gestation due to low lying placental implantation. However, placenta accreta was found in the lower uterine segment intraoperatively. We then decided to evacuate the placenta as much as possible. We inserted intrauterine foley catheter size 20 G and performed bilateral uterine artery ligation. Intrauterine catheter was released 24 hours after surgery with no active bleeding occurred.

2. DISCUSSION

Amenorrhea and infertility were the most common presenting symptoms of intrauterine adhesions.² Regarding the etiology, post-partum curettage has been regarded as the most common cause in previous studies.² The patient had amenorrhea and infertility as her presenting symptoms and incidentally had undergone curettage one year earlier. This condition suggested that the patient was highly susceptible to have intrauterine adhesions.

Surgical treatment includes adhesiolysis under hysteroscopic guidance, followed by IUD insertion was thought to be standard treatment in mild to moderate cases.⁴ Hysteroscopy provides a number of significant advantages in Asherman's syndrome as it provides a real time view of uterine cavity, allowing for precise exploration of the site, extent, and character of the adhesions. The success rate is high in mild and moderate cases, whereas severe cases like deep endometrial or myometrial trauma are uncorrectable.⁶ In our case, the patient had severe dense adhesions emerging from her cervix through uterine fundus but could successfully get conceived thereafter. This suggests that although pregnancy rate in severe intrauterine adhesions is much lower than mild adhesions, successful pregnancy could still be promising.

There are many methods to prevent recurrences such as using a variety of solid and semi-solid (gel) barriers and inserting an IUD or Foley catheter to separate the endometrial layers.⁴ Following hysteroscopic adhesiolysis, postoperative hormonal treatment using estrogen, with or without progestin, may reduce recurrence of IUA as well.⁴ Estrogen is often used to promote endometrial proliferation and healing after surgery.

The overall conception rate after hysteroscopic adhesiolysis was 48.2%.¹ The cumulative conception rate varied from 59% to 61% within 1 year and 87.2% to 97% within 2 years after hysteroscopic adhesiolysis.⁵ Younger age, earlier treatment, fewer cervical adhesions, and fewer surgical procedures improve the reproductive outcome in severe IUAs.⁷ Fortunately, our patient could get conceived as she had resumption of her normal menstruation after her fourth cycles following hysteroscopic and hormonal treatment.

Even in women who conceive after Asherman's Syndrome treatment, a meticulous surveillance should be carried out for the higher risk of placental anomalies.⁴ Pregnancies following surgical treatment for Asherman's Syndrome are associated with a number of adverse outcomes including ectopic pregnancy, placenta praevia, placental abruption, and placenta accreta.⁸

The incidence rate placenta accreta was about 2.6% after hysteroscopic adhesiolysis.⁹ Our patient did have placenta accreta and troublesome postpartum bleeding but we were able to manage these problems with Foley catheter balloon tamponade and bilateral uterine artery ligation.

Abdulkareem *et al* concluded that menstrual changes and/ or infertility are the suggestive symptoms of IUA. Hysteroscopy is the gold standard for diagnosis and treatment of IUA and the treatment of IUA associated with significant improvement in the reproductive outcome and menstrual disorders.¹⁰

3. CONCLUSION

Hysteroscopic adhesiolysis is an indispensable treatment for women with Asherman's syndrome. Hysteroscopic adhesiolysis will provide significant improvement in the menstrual pattern and conception rates. Nevertheless, reformation of intrauterine adhesions is an important consideration while performing adhesiolysis. In addition, it is important to consider all pregnancy preceded by Asherman's syndrome as high risk pregnancy.

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Conflict of Interest: Nil

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