



SUCCESSFUL HYSTEROSCOPY GUIDED SUCTION & EVACUATION OF PRODUCT OF CONCEPTION ALONG WITH REMOVAL OF UTERINE SEPTUM IN SAME SITTING.

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ABSTRACT

Objective To report a case of early pregnancy loss with septate uterus, successfully managed by hysteroscopy guided suction & evacuation of product of conception along with removal of uterine septum in same sitting. **Design** Case report. **Setting** Tertiary care hospital. **Patient** One woman with early pregnancy loss with septate uterus. **Intervention** Hysteroscopy guided suction & evacuation of product of conception along with removal of uterine septum in same sitting. **Result** Hysteroscopy guided suction & evacuation of product of conception followed by septum removal with hysteroscopic scissor was performed, with minimal blood loss, in same sitting. Products of conception were sent for pathologic examination. There were no intra-operative or postoperative complications. **Conclusion** Even though the role of septum as a contributing factor to miscarriage is not certain, early pregnancy loss may be seen in patients with septate uterus. Blind removal of POCs with dilatation & curettage, may be complicated with retained products of conception (RPOC) or intrauterine adhesion formation, which can lead to adverse fertility outcomes in the future. Also removal of septum, which may or may not be the cause, is often performed before further pregnancy. This requires another admission & exposure to anaesthesia, along with added cost. Hysteroscopy guided resection of POC with septum removal in same sitting has been associated with complete tissue removal under vision, less damage to surrounding endometrium, cost effective combination of two surgical procedures & earlier time to conception compared with 2 sitting procedure (dilation and curettage than septum removal). Thus, hysteroscopy guided suction & evacuation of POC & septum removal in same sitting can be considered as an alternative surgical technique for management of early pregnancy loss in patients diagnosed with septate uterus. This case report demonstrates the successful application of hysteroscopic procedure in a case of early pregnancy loss with septate uterus.

KEYWORDS : Early pregnancy loss, hysteroscopy, infertility, intrauterine adhesions, retained products of conception, early pregnancy loss, uterine septum, intrauterine adhesions.

INTRODUCTION

Early pregnancy loss (EPL) occurs in 10% of all clinically recognized pregnancies. It can be managed expectantly, medically, or surgically. Medical management has a high success rate, especially for early gestations, with a low risk of intrauterine adhesions (IUAs). For women who elect surgical management, one of the potential complications after surgical management of EPL is IUA formation. Intrauterine adhesions may be asymptomatic or may cause amenorrhea or hypomenorrhea, recurrent pregnancy loss, infertility, preterm delivery, and/or abnormal placentation in future pregnancies (1, 2, 3, 4, 5).

Hysteroscopy guided removal of RPOCs has been well described in the literature for management. It has been shown to have a low complication rate, low IUA rate, high future pregnancy rate, and high success rate of complete tissue removal (7, 8, 9, 10). In a systematic review by Hooker et al. (11) that compared hysteroscopic removal to blind suction evacuation for RPOC, there was a lower risk of IUAs, a lower risk of incomplete tissue evacuation, and a shorter time to conception in the Hysteroscopic removal group. There were no differences in conception, live birth, or miscarriage rates (11). Despite these benefits, Hysteroscopy guided removal is not commonly performed for the surgical management of EPL.

Uterine malformations are a common type of Mullerian anomaly and have been associated with decreased fertility, increased rates of miscarriage and preterm birth, along with other adverse fetal outcomes.

A septate uterus is a type of uterine anomaly, and is often diagnosed during an infertility workup. The relationship of a septate uterus to infertility has been well studied, however, no definitive association has been made⁽¹²⁾.

Surgical removal of a uterine septum in these patients has been shown in many studies to decrease rates of miscarriage and decrease rates of poor obstetrical outcomes⁽¹³⁾.

Case report

A 32 years old lady G2A1 presented with missed abortion at a gestational age of 9+4 weeks. She denied vaginal bleeding and cramping. Menarche was at age 13 and she reported having regular menses occurring every 26–28 days and usually lasting 5–6 days. Her medical history was not significant. She had a history of 1 prior 1st-trimester pregnancy loss which was medically managed. It was also a missed abortion at 7 weeks of pregnancy. She had 3D usg report which showed uterine septum measuring approx 1.39cm in length & on Doppler only mild flow was noted. Left endometrial cavity showed a gestational sac 0.35 cm with yolk sac without fetal pole corresponding to 5+1week POG. Viability scan 2 weeks later showed a CRL = 0.73 cm corresponding to 6+4 weeks POG with FHR – 107 bpm. Again Repeat ultrasound 3 weeks later showed the absence of cardiac motion and with 21.3 mm crown-rump length corresponding to 8+5 weeks of POG(S/O – missed abortion). Patient insisted for surgical management of uterine septum & suction + evacuation of POCs, in same sitting.

Counselling was done for 2 step procedure first suction & evacuation later septum resection. Patient was explained about the complications of bleeding, perforation & incomplete septum removal etc. but patient insisted for one sitting procedure.

Procedure

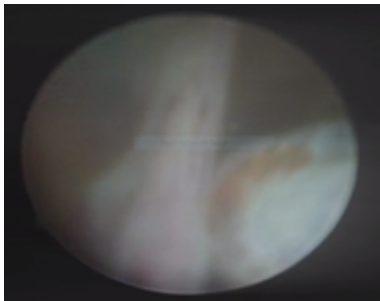
The procedure was performed under general anesthesia in the operating room with the hysteroscopy guided suction & evacuation system. IV antibiotic was given before starting the procedure. Vaginoscopy was done before the insertion of a 2.9 mm, 30-degree operative hysteroscope. Opening pressure was set to 80 mm Hg using normal saline as the distension medium. Uterine septum visualised with left cavity gestational sac. The gestational tissue was suctioned with Karman's cannula, until no products of conception remained. Then with help of hysteroscopic scissor uterine septum was resected until bilateral ostia were seen. Septum was thin but very

vascular as we reached the fundus.

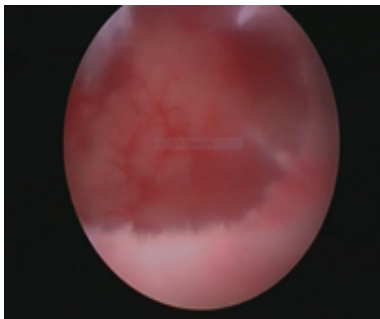
The hysteroscopic fluid deficit was 365 ml with minimal blood loss. There were no intraoperative or postoperative complications. Products of conception were sent for HPE & karyotyping.



Septate uterus in 3D USG



Left cavity gestational sac with uterine septum



Final cavity look

DISCUSSION

The purpose of study was to check feasibility & efficacy of the procedures hysteroscopy guided suction & evacuation of product of conception along with removal of uterine septum in same sitting.

Such situations arise rarely in clinical practice where we have to take a decision to combine two surgical procedures under same anaesthesia. This puts the surgeon into dilemma, especially when there is no such documented work in literature.

On intensive search we could not found any study on this type of procedure, although we found some data regarding hysteroscopic removal of POCs which is mentioned here.

In this case we had did suction & evacuation followed by hysteroscopic visual confirmation of complete evacuation. This is similar to a study by.....on hysteroscopic resection allows complete removal of products of conception by visual confirmation of complete evacuation. (6).

In our case with the guidance of hysteroscope we could visualize both cavities created by septum & thus could completely remove complete POCs. This is comparable with a study by Rein et al. (14) in which hysteroscopic resection also

allows for the removal of tissue from hard-to-reach areas, such as the uterine cornua, which may be missed during a blind procedure using a rigid curette.

It is found that the incidence of IUAs after Hysteroscopic removal for RPOC was lower and the time to conception was shorter compared with those who underwent D and C.

A study by Cohen et al. (15) & in our case we get shorter time period for conception, as we had done both procedure in same sitting & due visual confirmation there is less chances of RPOCs. As remaining endometrium is untouched in our case there is also less chances of IUAs.

It is found that 21% of women who initially underwent D & C for RPOC eventually required a second hysteroscopy for persistent trophoblastic tissue. In a retrospective review by Ben-Ami et al. (16) & in our case we had done visual confirmation so that there were less chances of RPOCs & second hysteroscopy.

Operative hysteroscopy provides the additional advantage of simultaneously evaluating the uterine cavity for congenital uterine anomalies (i.e., a uterine septum) and intrauterine pathology (i.e., submucosal fibroids), which may be the underlying etiology of EPL and associated with an increased risk of RPOC (15).

Operative hysteroscopy may result in more cases of complete evacuation and a lower risk of uterine perforation compared with blind D and C, particularly in cases involving uterine anomalies (15).

Applying this technique was technically more challenging because increase vascularity of the uterus & septum during pregnancy. We were worried about complications like bleeding, perforation because of gravid uterus.

CONCLUSION

In conclusion, hysteroscopy guided suction & evacuation can be successfully applied to the surgical management of EPL with uterine septum. It may also decrease the risk of uterine perforation, IUAs formation and incomplete tissue evacuation. It provides earlier time to conception compare to traditional method.

This procedure was day care which was cost effective & time saver for the patient. There was one time admission & onetime exposure to anaesthesia.

Limitations

Limitations of this case study include the lack of long-term pregnancy and fertility outcomes. More studies involving Hysteroscopic septum resection along with suction & evacuation at same sitting for long-term fertility and pregnancy outcomes, as well as a cost-benefit analysis, are needed.

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