Medical Journal of the
Islamic Republic of Iran

Volume 14
Number 3
Fall 1379
November 2000

HYSTEROSCOPIC METROPLASTY: SECTION OF THE CERVICAL SEPTUM DOESN'T IMPAIR REPRODUCTIVE OUTCOME

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ABSTRACT

The purpose of this study was to determine whether sectioning the cervical septum is associated with intraoperative bleeding, incompetent cervix, and secondary infertility. In this prospective observational study, fourteen women with complete septate uterus who had a history of repeated pregnancy loss and infertility were treated hysteroscopically. Preoperative history included 35 pregnancies of which abortion rate was 62.8% and premature delivery 37.2%. Three infants (8.5%) survived. The cerivcal portion of the septum was incised with Metzenbaum scissors and the corporeal portion with microscissors under hysteroscopic guidance. Eleven patients achieved pregnancy (78.5%). There were ten term pregnancies (91%). Mean±SD of operating time was 31.1±9.74 minutes with a mean±SD distending media deficit of 472±186 mL. No significant bleeding was encountered. At follow up hysterosalpingography, all cervices were competent. In conclusion, section of the cervical septum with scissors is simple, rapid and safe, facilitates corporeal hysteroscopic metroplasty, and may be considered a valid procedure to correct a complete septate uterus.

MJIRI, Vol. 14, No. 3, 227-229, 2000.

Keywords: Septate uterus, Cervical septum, Pregnancy loss, Hysteroscopy.

INTRODUCTION

Hysteroscopic metroplasty is the method of choice for the symptomatic septate uterus.[1-4] Results of hysteroscopic unification of the divided uterine cavity have provided a satisfactory reproductive outcome with decreased morbidity, cost and inconvenience when the septum is partial.[5-8] This endoscopic approach may be problematic in the case of a complete septate uterus with two external cervical ostia. According to published articles and current opinion, the cervical part of the septum shouldn't be spared to avoid intraoperative bleeding and cervical incompetence in subsequent pregnancies.[9,10] Methods were used in which only the corporeal portion of the septum was sectioned and the communication between the two cavities was created at the isthmic level.[11,12] The major problem with the above technique is the blind section during the first part of the procedure, because orientation can only be suggested when the hysteroscope is in one hemicavity, as both tubal ostia cannot be observed at the same time. Thus the uterus may be perforated toward the anterior or posterior wall.[13,14] In this study we performed hysteroscopic metroplasty including section of the cervical part in 14 women with complete septate uteri to evaluate the degree of difficulty of this modified technique, the reproductive outcome and the frequency of early and late complications.

MATERIALS AND METHODS

Fourteen women with a complete septate went a prospective observational study of hysteroscopic metroplasty in Shiraz University of Medical Sciences' affiliated hospitals. All women but 4 who were infertile demonstrated repetitive pregnancy loss and underwent a routine

work up for this condition. The patients' age ranged from 19 to 38 years (median age 28). The preoperative history included 35 pregnancies of which 22 (62.8%) were spontaneous late abortions (2nd trimester) and 13 (37.2%) premature deliveries. Three infants (8.5%) survived. All patients had a preoperative hysterosalpingography (HSG) that showed a didelphic uterine configuration. A subsequent laparoscopy had demonstrated a single fundal configuration. Longitudinal vaginal septum was present in nine patients. General anesthesia was used for all cases. Vaginal septums were incised by Metzenbaum scissors between two hemostatic clamps and the anterior and posterior vaginal walls were sutured with 2/0 chromic catgut in continuous lock fashion. In order to incise the cervical and uterine part of the septum, the technique was similar to that of Vercellini et al.[14] The cervical septum was incised with Metzenbaum scissors and the corporeal portion with microscissors under hysteroscopic and laparoscopic guidance. The procedure was completed as routine.[4] Fluid balance was calculated as the difference between the amount of solution instilled into the uterus and the amount that was recovered from the pelvic cavity, the hysteroscopic outflow channel and from the plastic drapes that funneled fluids escaping through the cervix. The operating time was defined as the interval between the start of cervical dilatation and removal of the hysteroscope. Surgical difficulty was classified as none, minimal, moderate and severe. Complications were also recorded. HSG was requested 6 weeks postoperatively and the patient had regular follow up visits.

RESULTS

Mean±SD operating time was 31.1±9.74 minutes with mean±SD distention media deficit of 427±186 mL. No symptoms or signs of fluid overload were observed. No significant bleeding occurred from any cervical septum after incision with Metzenbaum scissors. The degree of difficulty of the intervention was considered minimal in 9 cases and moderate in 5. All women were discharged within 24 hours. At follow up HSG, cervices were competent allowing regular cavity distention. Corporeal septal remnants 1 cm or less, found in 3 patients, were incised in another session. Eleven patients with complete septal incisions conceived. Eight carried the pregnancy to term and delivered vaginally, and 2 underwent cesarean section at 36 and 38 weeks due to premature rupture of membranes and fetal distress respectively. Total term deliveries and fetal survival was 91%. One patient aborted at the end of the 3rd month of gestation. No patient needed prophylactic cervical circlage.

DISCUSSION

Due to the possibility that a single incompetent cervix might be created from two separate cervical canals, Jones had admonished against resecting cervical septa and resection of the septum above the cervical canal was advised.[9-12,15] Others believe that while a symptomatic uterine septum must be treated by hysteroscopic metroplasty when the septum involves the cervical canal, this cervical portion of the septum doesn't need to be incised because it doesn't contribute to symptomatology, and also because it's removal may contribute to some problems such as intraoperative uncontrollable bleeding, scarring and cervical factor secondary infertility.[16] However our results with this technique compare favorably with those of classic methods in term of operating time and distending media absorption as were reported previous.[4,5] Since incision of the cervical septum was previously reported with a good result,[11,14] we also started to section cervical septae because of difficulties in creating the initial communication between the two corporeal cavities when the tissue to be cut was thick. For the corporeal part of the septum we routinely use microscissors because in our opinion this is the simplest, least expensive instrument and doesn't damage tissue beyond the visible limits of the section.[13,17] Operating time (31 minutes) was the same as classic hysteroscopic metroplasty. Intraoperative and postoperative bleeding was negligible. Reported cases of an incised cervical septum readhesion is another problem.[18] During the follow up period and according to the HSG, there were no incisional site readhesions. The only 3 cases of remnant septa were due to poor uterine distension during the procedure. When the procedure was performed for women who have proven to be fertile and have no other associated factors for their pregnancy wastage, reproductive outcome was excellent. In this preliminary report the overall pregnancy rate was 78.5%. Of those patients who achieved pregnancy the viable pregnancy rate reached 91%. None of our patients needed cervical circlage. These findings do not support the idea that this procedure will impair reproductive outcome. Nine women had a longitudinal vaginal septum dividing the upper one or two thirds of the vaginal canal. We corrected this anomaly with a continuous incision, an approach supported by Buttrum et al.[19] Four patients were infertile of whom one conceived after metroplasty. However this cannot explain the efficacy of the infertility aspect of the procedure used.

In conclusion, the observational nature of our study limits the value of our findings. However, given the relative paucity of women with a complete septate uterus it seems unrealistic to design a randomized clinical trial on section versus the conservation of the cervical septum with obstetric outcome as the primary endpoint. Based of our admittedly limited experience, section of the cervical septum with scissors is simple, rapid, and safe. It facilitates corporeal metroplasty and it may be considered a valid alternative procedure to correct a complete septate uterus.

REFERENCES

1. Batioghlu S, Zeneloghlu HB: Endoscopic management of a case of complete septate uterus with unilateral pyometra. Gynecol Obstet Invest 47 (2): 144-46, 1999.
2. Martinez Revelez M, Salazar Lopez Ortiz CG, Gavino Gavino F, et al: Laparoscopy and hysteroscopy in Mullerian duct malformation: usefulness and reproductive results. Gynecol-Obstet Mex 67: 4-8, 1999.
3. Szamatowicz J, Tomaszewska S, Szamatowicz M: The effectiveness of hysteroscopic intrauterine septum resection in terms of reproductive outcome. Ginekol Pol 69(10): 757-60, 1998.
4. Grimbizis G, Camus M, Classen K, Tournaye H, et al; Hysteroscopic septum resection in patients with recurrent abortions or infertility. Hum Reprod 13(5): 1188-93, 1998.
5. Kupesic S, Kurjak A: Diagnosis and treatment outcome of the septate uterus. Croat Med J 39(2): 185-90, 1998.
6. Bacsko G: Uterine surgery by operative hysteroscopy. Eur J Obstet Gynecol Reprod Biol 71(2): 219-22, 1997.
7. Dabirashrafi H, Mohammad K, Moghaddami Tabrizi N, Zandinejad K: Is estrogen necessary after hysteroscopic incision of the uterine septum? J Am Assoc Gynecol Laparosc 3(4): 623-5, 1996.
8. Fedel L, Bianchi S, Marchini M, Mezopane R, et al: Residual uterine septum of less than 1 cm after hysteroscopic metroplasty doesn't impair reproductive outcome. Hum Reprod 11(14): 727-9, 1996.
9. Rock JA: Surgery for anomalies of the Mullerian ducts. In: Thomson JD, Rock JA, (eds.), Te Linde's Operative Gynecology. Philadelphia: JB Lippincott, pp. 677-730, 1997.
10. Rock JA: Uterine reconstructive surgery. In: Rock JA, Murphy AA, Jones HW Jr, (eds.), Female Reproductive Surgery. Baltimore: Williams and Wilkins, pp. 113-145, 1992.
11. Daly DC, Tohan N, Walters C, et al: Hysteroscopic resection of the uterine septum in the presence of a septate cervix. Fertil Steril 39: 560-63, 1983.
12. Rock JA, Murphy AA, Cooper WH: Resectoscopic technique for the lysis of a class 5 complete uterine septum. Fertil Steril 48: 495-96, 1987.
13. Vercellini P, Vendola N, Colombo A, et al: Hysteroscopic metroplasty with resectoscope or microscissors for the correction of septate uterus. Surg Gynecol Obstet 176: 439-42, 1993.
14. Vercellini P, Ragni G, Trsepidi L, et al: A modified technique for correction of the complete septate uterus. Acta Obstet Gynecol Scand 73: 425-28, 1994.
15. Jones HW: Reproductive impairment and the malformed uterus. Fertil Steril 36: 137, 1981.
16. Valle RF: Hysteroscopic treatment of partial and complete uterine septum. J Fertil Menopausal Stud 41(3): 310-15, 1996.
17. Candiani GB, Vercellini P, Fedel L, et al: Argon laser versus microscissors for hysteroscopic incision of uterine septa. Am J Obstet Gynecol 164: 87-90, 1991.
18. Candiani GB, Vercellini P, Fedel L, et al: Repair of the uterine cavity after hysteroscopic septal incision. Fertil Steril 54: 991-95, 1990.
19. Buttram VC Jr, Reiter RC: Uterine anomalies. Baltimore: Williams and Wilkins, pp. 149-99, 1985.