CASE REPORT

A novel surgical approach to obstructed hemiuterus: sonographically guided hysteroscopic correction

Shabtai Romano, Moshe Bustan, Izhar Ben-Shlomo and Eliezer Shalev

Department of Obstetrics and Gynecology, Ha’Emek Medical Centre, Afula, and the Rappaport School of Medicine, Technion–Israel Institute of Technology, Haifa, Israel

1To whom correspondence should be addressed at: Department of Obstetrics and Gynecology, Ha’Emek Medical Centre, Afula 18101, Israel. E-mail: shaleve@tx.technion.ac.il

Unilateral obstruction of a duplicate uterus is very rare. The current recommendation for its correction involves transmural incision of the uterine muscle. A method is presented here that was successfully applied in one patient suffering from this anomaly, using sonographically guided hysteroscopy. This method obviated the need for an extensive operation.

Key words: corrective surgery/Müllerian anomalies/ultrasonography

Introduction

Unilateral obstruction of a duplicate uterus is a very rare occurrence. Unlike complete obstruction of the upper genital tract, it does not cause a delay in the onset of menstruation; hence its diagnosis comes much later. Its clinical appearance may be either incidental by discovery of a pelvic mass or due to cyclic pain associated with menstruation, which by itself is not a very specific complaint. Traditionally, the diagnosis was made at the time of either laparoscopy or laparotomy, when surgical correction was invariably via laparotomy. With advances in ultrasound technology and the successful application of sonographic guidance for hysteroscopic intervention (Shalev and Zuckerman, 1986; Shalev et al., 1994), it became appropriate to attempt correction of this specific anomaly by the above combination. We suggest this new approach for future treatment of such an anomaly, and present a case in which surgical correction was done by hysteroscopy under sonographic guidance.

Case history

A 22 year old nulliparous woman sought our advice for abdominal pain during menstruation, which was not relieved by conventional over-the-counter analgesics. She had had regular menstrual bleeding from the age of 13 years. At the age of 16 years she underwent laparotomy for torsion of the right ovary, at which a salpingo-oophorectomy was done. There was no record of any notable malformation of the uterus. On our primary physical examination the vagina and cervix appeared to be normal and the uterus was enlarged to the size of an 8 week pregnancy. Vaginal sonography (6.5 MHz; Elscint 2000, Haifa, Israel) disclosed two uterine cavities separated by a septum 7 mm wide. One cavity appeared normal, whereas the other was occupied by contents with the sonographic echogenicity of liquid (Figure 1). Intravenous pyelography and renal sonogram were normal. The patient was scheduled for a complementary diagnostic laparoscopy/hysteroscopy session. The possibility for hysteroscopic intervention was discussed with the patient and she agreed to a corrective procedure, if deemed necessary and possible by the operator. On laparoscopy, the uterus was found to be asymmetric with a globular right side, connected to a blind tubal stump (Figure 2a). Hysteroscopy revealed a uterine cavity of normal appearance with one tubal ostium. The septum on the medial side was then punctured by electrocoagulator. A large amount of chocolate-like material escaped from the newly formed communication. This in turn did not enable further correction during that session. Postoperative recovery was immediate and she was discharged on the same day.

The patient was seen again 6 months later for recurrence of the same pain during menstruation. Vaginal examination and sonography revealed findings consistent with secondary closure of the communication. This time hysteroscopy was performed...
Sonographically guided septectomy

Jones operation had to be delivered by a Caesarean section for the fear of uterine rupture. We believe that our approach enables vaginal birth to take place without additional risk. Consistent with our previous experience (Shalev and Zuckerman, 1986; Shalev et al., 1994) and the reported experience of others (Cincinelli et al., 1999), we also took advantage of high-resolution ultrasound to guide hysteroscopic resection of the lower septum. This in turn helped prevent the accidental piercing of a wall other than the septum itself, and on the exact level at which we intended to do so. Although it may appear to be redundant, ultrasonic surveillance is a good safeguard against such an accidental piercing.

A possibility that was not applicable in our patient is to follow the first piercing with hypophyseal suppression by a gonadotrophin-releasing hormone agonist or to administer Danazol. This in turn would prevent accumulation of menstrual remnants as a preparation for the definitive resection of the septum. Our patient did not choose to use this approach, hoping to avoid further interventions. In addition, we did not resect the uterine septum in its entirety due to concerns regarding possible results of a too extensive resection.

In conclusion, when nowadays one encounters a blocked hemiuterus, the appropriate approach for the correction of this rare anomaly should be hysteroscopic, with the accompanying ultrasonographic guidance.

References

Received on November 23, 1999; accepted on March 13, 2000

Discussion
Müllerian defects of lateral fusion are relatively common. However, unilateral obstruction is exceedingly rare. In the past, it presented the clinician with the perplexing mixture of symptoms attributable to both obstructed and patent female genital tract. The introduction of high-resolution ultrasonography very much simplified the clinical problem. Nevertheless, it did not seem to have much influence on the surgical approach. The latest edition of Te Linde’s Operative Gynecology (Thompson and Rock, 1992) still recommends the operation first described by Jones for such an anomaly. This operation involves an incision through the full thickness of the uterus in order to excise the septum and re-approximate the two uterine halves. The hysteroscopic approach that we present here altogether avoids this major insult to the integrity of the uterine wall, with its inherent disadvantage to future reproductive capacity. Indeed in the past, all women who underwent the Jones operation had to be delivered by a Caesarean section for the fear of uterine rupture. We believe that our approach enables vaginal birth to take place without additional risk.

Figure 2. Schematic description of the anatomical situation in the patient with right blocked hemiuterus: (A) before intervention; (B) after sonographically guided partial septectomy.