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Pregnancy on a Septate Uterus Carried to Term: A Case Report

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Abstract **Case Report**

Uterine abnormalities were described in the 1800s by Cruveilhier and Von Rokitansky. Several classification systems are used to describe uterine and cervico-vaginal abnormalities, known as Mullerian abnormalities. These abnormalities are often involved in reproductive difficulties, such as loss of pregnancy, dystocic presentations or premature delivery. However, many women with uterine septa do not experience reproductive difficulties. Reporting the case of a full-term pregnancy in a parturient carrying a uterine septa.

Keywords: Pregnancy, Septate Uterus Carried.

INTRODUCTION

Uterine abnormalities were described in the 1800s by Cruveilhier and Von Rokitansky [1]. Several classification systems are used to describe uterine and cervico-vaginal abnormalities, known as Mullerian abnormalities [2, 3].These abnormalities are often involved in reproductive difficulties, such as loss of pregnancy, dystocic presentations or premature delivery. However, many women with uterine septa do not experience reproductive difficulties [4]. Reporting the case of a pregnancy carried to term in a parturient carrying an uterine septa.

CASE PRESENTATION

Patient aged 25 years, primigeste of group AB Rhesus positive with no significant pathological history in particular, menarche at 12 years; regular cycle 5 days on 29, admitted at 38 weeks of amenorrhea and 5 days for management of her delivery. The general examination finds a patient in good general condition; strained and apyretic. The obstetric examination finds a uterine height at 34 cm of the present and regular fetal heart sounds. The gynecological examination with speculum and the vaginal examination finds a thick vaginal septum with two dilated cervical orifices each at 2 cm, erased at 90% with a attached cephalic presentation perceived through one of the two orifices, intact water bag with a pelvis without abnormalities at clinical examination. A caesarean section was indicated, which made it possible to give birth to a female newborn, weighing 3050 gram. Post-extraction the uterine exploration objectified an asymmetrical total septal uterus consisting of two hemimatrices, two cervical orifices, and two hemivaginas separated by a thick septum (Figure 1, Figure 2). The evolution were simple for the mother and the newborn.

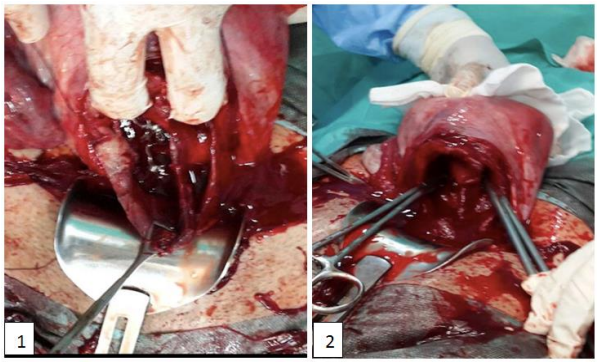
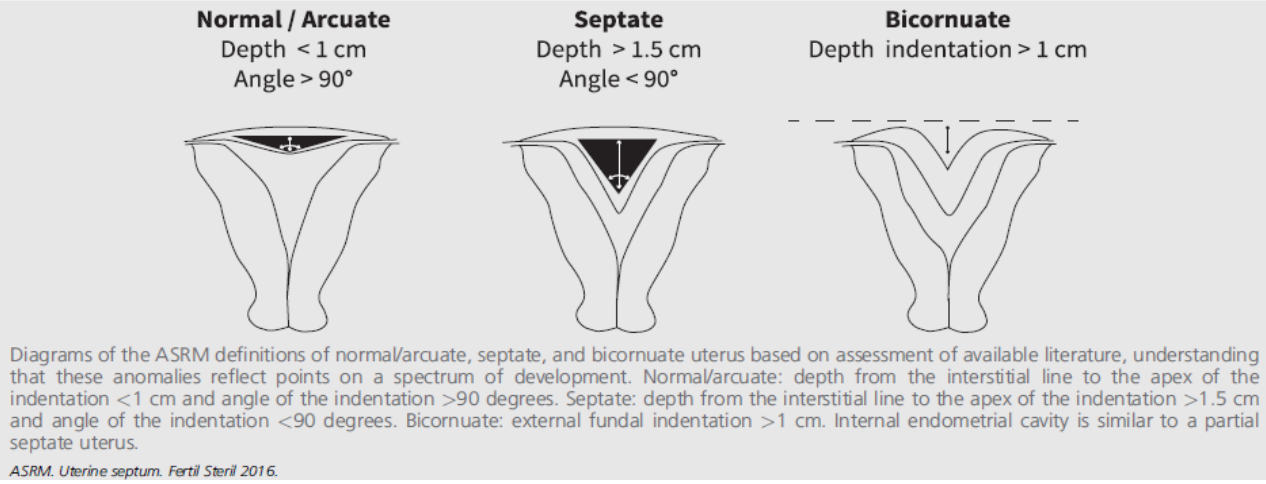


Fig-1-2: Asymmetrical total septal uterus: 2 hemimatrices and 2 cervical orifices



Diagrams of the ASRM definitions of normal/arcuate, septate, and bicornuate uterus based on assessment of available literature, understanding that these anomalies reflect points on a spectrum of development. Normal/arcuate: depth from the interstitial line to the apex of the indentation <1 cm and angle of the indentation >90 degrees. Septate: depth from the interstitial line to the apex of the indentation >1.5 cm and angle of the indentation <90 degrees. Bicornuate: external fundal indentation >1 cm. Internal endometrial cavity is similar to a partial septate uterus.

ASRM. Uterine septum. Fertil Steril 2016.

Fig-3

DISCUSSION

The septate uterus is an abnormality due to a failure of resorption of the median wall between the two mullerian channels before the 20th embryonic week. Many abnormalities of the uterine sept are asymptomatic, which makes it difficult to specify the prevalence of this abnormality, but it is estimated between 1 to 2 per 1,000 and up to 15 per 1,000 [4].

Current data do not suggest an association between the septa uterine and renal abnormalities that can be found in about 11-30% of individuals with another subtype of müllen abnormalities [5], as a result, assessment of the renal system may not be required in patients with uterine septa.

A septate uterus can be partial or complete. The size and shape of the partition can vary depending on the width, length and vascularization. However, there are no standard definitions of compartmentalized uterus. For the European Society for Human Reproduction and Embryology (ESHRE) and the European Society for Gynecological Endoscopy (ESGE), a uterine septa is an internal indentation that extends over 50% of the thickness of the myometric wall [3], while the American Society for Reproductive Medicine (ASRM) does not provide strict parameters for defining septal configurations [2-6-7] (Figure 3).

The diagnosis of Mullerian abnormalities was based on a gold standard associating laparoscopy/hysteroscopy, which allowed the study of the uterus in its entirety thus facilitating the diagnosis of the uterus septa of the two-cornered uterus. The evolution of X-ray exploration methods over the past 20 years has made the diagnosis of uterine septa less invasive. A study of 117 women showed that three-dimensional (3-D) ultrasound combined with saline administration had 100% accuracy compared to laparoscopy/hysteroscopy [8]. Similarly, 3D ultrasound without saline infusion was more than 88% accurate for the diagnosis of uterine septa compared to hysteroscopy/laparoscopy [8, 9].

Diagnosis of the septate uterine is often done during an infertility assessment. As a result, the incidence of uterine septa in this population is higher than in the general population, suggesting a link to infertility, however, it remains unclear whether the uterine partition is the sole cause of infertility, as the latter may be the result of multiple factors [10, 11].

Despite the lack of evidence of the direct relationship between the partitioned uterus and infertility, several studies have shown the improvement of the clinical pregnancy rate in women with infertility who have benefited from hysteroscopic uterine septum resection [12].

Several observational studies supporting uterine septa have shown that this abnormality contributes to miscarriages and premature births, in addition it can increase the risk of other complications such as poor presentation, intrauterine growth retardation, placental detachment, and perinatal mortality [13], hence the interest in treating these partitions with hysteroscopy to reduce these complications [12].

The current treatment of uterine septa is based on less invasive hysteroscopic techniques, which have made it possible to replace the old procedures with laparotomy (modified Jones or Tompkins procedure). Commonly used hysteroscopic techniques include incision of the septum by cold scissors, unipolar, bipolar, or laser cautery.

The medium of distension of the uterus depends on the technique of incision or the source of energy, have can use the saline solution, glycine, sorbitol or mannitol [14]. The intraoperative use of laparoscopy, and more recently transabdominal ultrasound is recommended reducing the risk of uterine perforation [15]. In post-surgery, the lack of evidence,

does not allow to recommend or not a preventive treatment of adhesions [16]. In addition, it is recommended to wait two months after surgery before allowing conception in the patient [17].

CONCLUSION

The septate uterus is the most common uterine malformation, its diagnosis is increasingly based on less invasive imaging methods. It is a malformation that often remains linked to infertility. Its treatment allows a better pregnancy rate and reduces the rate of adverse pregnancy outcomes.

REFERENCES

1. Cruveilhier, D. W. J. (1978). Fundaments of pathology, thoughts on the 100th anniversary of Rokitansky's death. *Virchows Arch A Pathol Anat Histol*, *378*, 1-16.
2. Buttram Jr, V. C., & Gibbons, W. E. (1979). Müllerian anomalies: a proposed classification (an analysis of 144 cases). *Fertility and sterility*, *32*(1), 40-46.
3. Grimbizis, G. F., Gordts, S., Di Spiezio Sardo, A., Brucker, S., De Angelis, C., Gergolet, M., ... & Campo, R. (2013). The ESHRE/ESGE consensus on the classification of female genital tract congenital anomalies. *Human Reproduction*, *28*(8), 2032-2044.
4. Valle, R. F., & Ekpo, G. E. (2013). Hysteroscopic metroplasty for the septate uterus: review and meta-analysis. *Journal of minimally invasive gynecology*, *20*(1), 22-42.
5. Oppelt, P., Renner, S. P., Brucker, S., Strissel, P. L., Strick, R., Oppelt, P. G., ... & Beckmann, M. W. (2005). The VCUAM (Vagina Cervix Uterus Adnex–associated Malformation) Classification: a new classification for genital malformations. *Fertility and sterility*, *84*(5), 1493-1497.
6. American Fertility Society. (1988). classifications of ad-nexal adhesions, distal tubal occlusion, tubal occlusion secondary to tubal ligation, tubal pregnancies, mullerian anomalies and intrauterine adhesions. *Fertil Steril*, *49*(6), 944-955.
7. Ludwin, A., & Ludwin, I. (2015). Comparison of the ESHRE–ESGE and ASRM classifications of Müllerian duct anomalies in everyday practice. *Human Reproduction*, *30*(3), 569-580.
8. Ludwin, A., Pityński, K., Ludwin, I., Banas, T., & Knafel, A. (2013). Two-and three-dimensional ultrasonography and sonohysterography versus hysteroscopy with laparoscopy in the differential diagnosis of septate, bicornuate, and arcuate uteri. *Journal of minimally invasive gynecology*, *20*(1), 90-99.
9. Moini, A., Mohammadi, S., Hosseini, R., Eslami, B., & Ahmadi, F. (2013). Accuracy of 3-Dimensional Sonography for Diagnosis and Classification of Congenital Uterine Anomalies. *Journal of Ultrasound in Medicine*, *32*(6), 923-927.
10. Acién, P. (1993). Reproductive performance of women with uterine malformations. *Human Reproduction*, *8*(1), 122-126.
11. Shuiqing, M., Xuming, B., & Jinghe, L. (2002). Pregnancy and its outcome in women with malformed uterus. *Chinese Medical Sciences Journal= Chung-kuo i hsueh k'o hsueh tsa chih*, *17*(4), 242-245.
12. Saygili-Yilmaz, E., Yildiz, S., Erman-Akar, M., Akyuz, G., & Yilmaz, Z. (2003). Reproductive outcome of septate uterus after hysteroscopic metroplasty. *Archives of gynecology and obstetrics*, *268*(4), 289-292.
13. Venetis, C. A., Papadopoulos, S. P., Campo, R., Gordts, S., Tarlatzis, B. C., & Grimbizis, G. F. (2014). Clinical implications of congenital uterine anomalies: a meta-analysis of comparative studies. *Reproductive biomedicine online*, *29*(6), 665-683.
14. American College of Obstetricians and Gynecologists. (2005). ACOG technology assessment in obstetrics and gynecology, number 4, August 2005: hysteroscopy. *Obstetrics and gynecology*, *106*(2), 439-442.
15. Karande, V. C., & Gleicher, N. (1999). Resection of uterine septum using gynaecoradiological techniques. *Human Reproduction*, *14*(5), 1226-1229.
16. Rafea, B. F. A., Vilos, G. A., Oraif, A. M., Power, S. G., Cains, J. H., & Vilos, A. G. (2013). Fertility and pregnancy outcomes following resectoscopic septum division with and without intrauterine balloon stenting: a randomized pilot study. *Annals of Saudi Medicine*, *33*(1), 34-39.
17. Yang, J. H., Chen, M. J., Chen, C. D., Chen, S. U., Ho, H. N., & Yang, Y. S. (2013). Optimal waiting period for subsequent fertility treatment after various hysteroscopic surgeries. *Fertility and Sterility*, *99*(7), 2092-2096.