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### RESEARCH ARTICLE

#### OBSTETRICAL PROGNOSIS AFTER UTERINE SEPTUM SECTION BY HYSTEROSCOPY ABOUT A CASE REPORT

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#### Abstract

The septate uterus is the most common congenital uterine malformation resulting from a resorption defect of the inter-müllerian septum. It is frequently associated with conception abnormalities such as early recurrent spontaneous miscarriage (FCS) and late recurrent miscarriage (FCT) but also with fertility abnormalities, without a clear mechanism. The imaging techniques used to diagnose a septate uterus are based on : Endo-vaginal ultrasound, diagnostic hysteroscopy and IRM pelvic . Surgical treatment is based on septum sectioning which is a minimally invasive surgical technique with low risk of complications. This septal section significantly improves the obstetrical prognosis in women with a desire for pregnancy.

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#### Introduction:-

The septate uterus is the most common congenital uterine malformation resulting from an abnormal resorption of the intermüllerian septum(1).

The prevalence of congenital uterine malformations is difficult to assess in the literature. It is estimated to be between 0.1% and 9.8% depending on the diagnostic method used (ultrasound, hysterosonography, surgical hysteroscopy or hysterosalpingography, laparoscopy, IRM...) and the population studied (6, 7).

Infertility, recurrent SCC, FCT, and preterm birth (PY) are common obstetric complications in patients with a septate uterus. (3)

Partition section is a minimally invasive surgical technique, with a high acceptability by the patients, with a low risk of complications (4, 5) allowing to obtain a cavity of normal size and shape.

We report in this observation the case of a patient with 6 years of secondary infertility whose obstetrical prognosis was favorable with surgical intervention.

#### Patient And Observation:-

patient, 38 years old, married for 8 years, Gestité 2 parietal 0, has a history of two spontaneous uncured miscarriages at 2 months, with no toxic habits. Consulted for secondary infertility of 6 years,

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The clinical examination found a patient in good general condition, overweight BMI: 29 , with a gynecological examination without particularity.

**Diagnostic workup:**

As part of an etiological workup for infertility, a hysterosalpingography was requested, showing a uterine cavity that was reduced in size, partitioned with right tubal impermeability, and left tubal permeability.

**An Magnetic Resonance Imaging (MRI) :**

Was performed which showed a uterine septum with an arched bottom and a normal sized uterus of 45\*38 mm.

A diagnostic hysteroscopy revealed the presence of a triangular uterine cavity with a mediouterine septum, both ostia seen.

**Therapeutic intervention:**

The patient underwent uterine septal cure by surgical hysteroscopy, including sectioning with a tip using bipolar energy in section mode. No postoperative medical treatment or intrauterine device was used. (Figure 1)



**Figure 1:-**

**Follow-up and results:**

5 months after surgery, the evolution was favorable marked by the discovery of an incipient intrauterine pregnancy with a BHCG level of 2900 IU, an endovaginal obstetrical ultrasound objective a gestational sac of 9.3 mm corresponding to a gestational age of 5 sa +5 days. (Figure: 2)

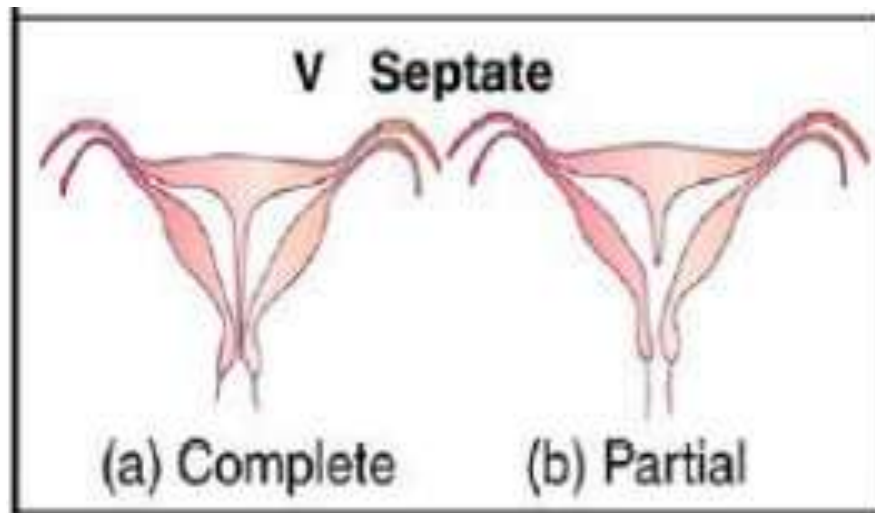


### Discussion:-

Uterine septum is the most common uterine malformation. Its prevalence among malformations is estimated at 75% (2, 8, 9).

Infertility, recurrent SCC, FCT, and preterm delivery (Pd) are common obstetric complications in patients with a septate uterus. Hua et al. showed that the presence of an uterine anomaly was associated with an increase in the occurrence of preterm delivery (<37 SA) (OR 5.9, 95% CI, 4.3-8.1;  $p < 0.01$ ) and premature rupture of membranes (OR 3.2, 95% CI, 1.8-5.6;  $p < 0.01$ ), breech presentation (OR 8.6, 95% CI, 6.2-12.0;  $p < 0.01$ ) and caesarean section for a reason other than podalic presentation (OR 2.6, 95% CI, 1.7-4.0;  $p < 0.01$ ) (10)

Clinical examination of a partial septate uterus with the speculum is normal. In the case of a totally septate uterus, the vaginal touch may reveal an associated vaginal septum. The uterine perception does not present any abnormality, the uterus being, from an external morphological point of view, normal (3) in our case the clinical examination of the patient was normal and without particularity. (Figure 4)



**Figure 4:-** Classification American Society for Reproductive Medicine. (Three-dimensional ultrasonography in the diagnosis of Müllerian Duct Anomalies; Donald School Journal of Ultrasound in Obstetrics and Gynecology, 2009).

#### The imaging techniques used to diagnose a septate uterus are based on :

Endo-vaginal ultrasound which has a sensitivity of 100% and specificity of 80% in the diagnosis of uterine septum (12). Wu et al. found that 3D ultrasonography affirms the diagnosis of uterine septum in 92% with confirmation obtained by laparoscopy and/or diagnostic hysteroscopy (13).

Diagnostic hysteroscopy allows examination of the cervico-isthmic canal, the overall appearance of the uterine cavity, and visualization of the two ostium. In the case of a septate uterus, this examination allows the size of the septum to be assessed (arched uterus / total septate uterus) (3)

Magnetic Resonance Imaging MRI has a sensitivity and specificity close to 100% to distinguish a septate uterus from a bicornuate uterus (14).

Hysterosalpingography showed a sensitivity of 78% and a specificity of 90%, i.e., performance for differentiating uterine malformations considered poor, especially when one knows that other examinations have sensitivities and specificities close to 100% (15).

Our patient underwent a diagnostic hysteroscopy and a pelvic Magnetic Resonance Imaging which made the diagnosis.

Surgical treatment is based on sectioning the septum, which is a minimally invasive surgical technique with a low risk of complications (4, 5). Sectioning of the uterine septum is carried out by hysteroscopy using a 5Fr

hysteroscope (French). After locating the tubal ostia, the septum is sectioned using a tip using bipolar energy in section mode. In our case the patient benefited from a surgical hysteroscopy with resection of the uterine septum with simple post operative effects.

Partition section significantly improves the obstetrical prognosis in women who wish to become pregnant(11) , and The main criterion of judgement was the achievement of a live birth (full term or premature (3), Garbin et al.(16) and Lourdel et al.(4) propose this procedure in nulligravida patients from 35 years of age.

### **Conclusion:-**

Uterine septum sectioning improved obstetrical prognosis by increasing the live birth rate and decreasing the fetal loss rate.

### **Conflicts of interest**

The authors declare no conflicts of interest.

### **Contributions of the authors**

All authors contributed to the conduct of this work. All authors also declare that they have read and approved the final version of the manuscript.

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