Report of 2 cases of pregnancy in bicornuate uterus in the Soavinandriana Hospital Center, Madagascar

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Abstract: We report two cases of pregnancy in a bicornuate uterus observed at the Soavinandriana Hospital Center. These are 2 women aged 17 and 20 years old. The one was discovered during the caesarean section for a transverse position at term and the other diagnosed on the occasion of a death Fetal in utero confirmed by the presence of two uterine cavities objectified during the intervention. These women each gave birth to a child weighing 2,500g and 2,750g at birth. Thus, women who have uterine malformation have a high risk pregnancy hence the importance of prenatal follow-up.

Keywords: Bicornuate uterus, obstetrical prognosis, prenatal follows.

1. Introduction

Uterine malformations are rare, representing 1 to 4% of the general population. They are the consequence of an anomaly of the fusion of Muller's channels [1]. Among these abnormalities, septate uterus and the bicornuate uterus (25%) are the most frequent. They can remain asymptomatic hence the importance of undetected cases. However, these uterine malformations can be diagnosed during infertility, obstetric pathology, after miscarriage or premature delivery. A pregnancy in bicornuate uterus is also classified as a risk of obstetric complications: abortion, prematurity, intrauterine growth restriction, post partum hemorrhage. [2]. We report two cases of bicornuate uterus seen in the Hospital Center Soavinandriana in order to assess the outcome of pregnancy and maternal prognosis in the presence of this anomaly.

2. Observations

2.1. First case

It was about Mrs. RFN, 37 years old, with a pregnancy of 34 weeks 3 days of amenorrhea, hospitalized for decrease of the fetal movements. It was at 3rd pregnancy. The patient had a miscarriage of 4 months and an intrauterine fetal death of 8 months that would be due to pre-eclampsia not followed (without medical records). The uterine malformation was discovered during the infertility checkup. The patient had her first menstruation at the age of 13 years, with a polynomenorrhea and her menstrual cycle is regular (cycle of 30 days). In her family history, there was diabetes and high blood pressure. For the current pregnancy, she had performed 14 prenatal consultations with a specialist in gynecology and obstetrics who had diagnosed high blood pressure since the 20th week of amenorrhea. The complementary exams (blood count-prothrombin time- activated partial thromboplastin, blood Ionogram- alanine aminotransferase- aspartate aminotransferase-Uricemia-Creatininemia- Obstetrical Ultrasound) were all normal. However, the proteinuria of 24 hours is higher (500mg/24hours). She had antihypertensive treatment with Methyldopa (1g / 24hours). Similarly, she was under close clinicobiological surveillance. A caesarean section was planned at 35 weeks of amenorrhea due to a bicornuate uterus and a preeclampsia. However, a decrease of the fetal movements at 34 weeks 3 days of amenorrhea prompted an emergency fetal extraction.
On her admission to hospital, the woman was haemodynamically stable. She had no problems, no genital bleeding, the fundal height was 28 cm, the fetal movement was present and the fetal heart rate was 115 per minute. The vaginal touch showed a long, closed cervix, with posterior position, of soft consistency with cephalic presentation. The cesarean section was performed under spinal anesthesia, giving birth to a girl born vigorous weighing 2700g. The uterus with two cavities was also seen during the intervention, the hemostasis was perfect and the following operations are simple. The mother and her baby left the hospital on the fifth day of the caesarean section.

Figure 1: Intraoperative view of the bicornuate uterus.

2.2. Second case

She was a young woman aged 15, a student. The date of the last period was not known. She consulted for intermittent pelvic pain such as contracture, which may be acute in onset. The duration, the intensity and the frequency are preceded by a viscous genital discharge. She had no particular medical and surgical history. She had her first period at the age of 12 with an irregular menstrual cycle varied between 20 to 45 days. It was her first pregnancy. She had performed 4 prenatal consultations with a general practitioner.

On her admission to hospital, obstetrical examination showed a uterus with a large transverse axis, a fundal height of 24 cm, fetal heart rate at 145 / min. The vaginal touch had found a cervix dilated to 3cm, with perception of the shoulder to the fingerstall. The diagnosis of a woman in labor with shoulder presentation was made. She had an emergency cesarean section. There was no complication during the cesarean section. The woman gave birth to a female baby, born vigorous weighing 2750g. A bicornuate uterus is unexpectedly discovered (a uterus as heartshaped with 2 uterine cavities). The following operations are simple. The mother and her baby left the hospital on the fifth day of the caesarean section.

Figure 2: Intraoperative view of the bicornuate uterus.

3. Discussion

The bicornuate uterus is one of the most common uterine malformations (25%) [3-5]. Despite this frequency, very few cases have been recorded, because the majority of Malagasy do not have the means to pay for other complementary investigations necessary for the diagnosis of this malformation (pelvic ultrasound, Hysterography). Similarly, the malformation could remain asymptomatic. The two cases were the first cases of bicornuate uterus reported to the Soavinandriana Hospital in the last twenty years. According to the literature, the frequency of genital malformations including the bicornuate uterus is difficult to assess. Yet its incidence is high in some populations: 2 to 4% in the general population, 5 to 10% in the infertile
population [6] and 12% in women with a history of recurrent miscarriage [7].

In both cases, the uterine malformation was discovered during a fetal uterine death in the eighth month associated with a history of miscarriage for the first case and for the second case, the uterine malformation was discovered during the caesarean section for a transverse position at term. In a study conducted by Haddani F in 2016, the circumstances of discovered uterine malformation were dominated by: recurrent miscarriage in 27% of cases, unexpected discovery in 18% and primary sterility in 9% [8]. According to Blanc B and Agostini A, the uterine malformation is frequently discovered in case of: primary amenorrhea, primary dysmenorrhea, infertility, premature deliveries, dyspareunia, recurrent miscarriage, dystocic presentation, abnormality during delivery [9]. These complications could be explained by abnormal vascularization of the myometrium and structural abnormality in the uterine wall [10, 11].

Regarding the outcome of pregnancy, the first patient had given birth at 34 weeks 3 days of amenorrhea. Indeed, Hua M had found in Nice France in 2014 a risk of prematurity (40%) in the case of uterine malformation[12] and Shuiging M in Beijing China found a risk of prematurity (9.3%) in 2001 [13]. Prematurity such as intrauterine growth restriction during pregnancy on uterus malformation could have been due to the limited space of the uterine cavity. This limited space does not allow the fetus to develop normally. Therefore, the risk of complications increases with multiple pregnancies in women with uterine malformations. A study conducted by Rajaonarison and his team found twin pregnancies in bicornuate uterus with serious complications such as premature rupture of membranes, prematurity and umbilical cord prolapse [14]. In our second case, the pregnancy was normal like a normal uterus despite the poor monitoring of pregnancy. The Channareddy team also found a normal pregnancy outcome in bicornuate uterus in India thanks to a good monitoring [15].

Regarding the delivery and the fetal prognosis, cesarean delivery was requested in our cases and both children had an Apgar 10 in the 1st, 5th and 10th minutes. According to a study conducted by Shuiging M in China, the rate of caesarean section in case of uterus malformation was 61.8% with 11.8% of perinatal mortality [13]. The difference in the mode of delivery in case of uterus malformation depends on the technical platform of the center and its experience. Indeed, in case of complication, caesarean section must be performed urgently. Moreover, the mode of delivery may also depend on gestational age, fetal biometrics, and fetal vitality.

### 4. Conclusion

Uterine malformations are common and may remain asymptomatic. On the other hand, these clinical signs are very varied, ranging from fertility disorder to post partum hemorrhage. This should then encourage clinicians to look for uterine malformation in the case of gynecological and obstetric problems. For pregnancy, early diagnosis of malformation and careful monitoring are very important during a pregnancy in bicornuate uterus for the good of the mother and the baby.

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### 6. References


