

# Pregnancy in uterus bicornis unicollis: An obstetric enigma

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## Abstract

**Background:** Mullerian duct anomalies occur in 0.1 to 3% of women. Bicornuate uterus is a unification defect of the Mullerian ducts. Pregnancies in bicornuate uterus are usually considered as high risk because of association with poor reproductive outcomes, such as pregnancy loss, preterm birth, malpresentation and fetal deformity. **Case report:** We report a case of spontaneous conception in a primigravida. At 38wks she delivered successfully by elective low transverse cesarean section. **Conclusion:** Pregnancy in anomalous uterus should be considered as a high risk case. The management of pregnancy in a bicornis unicollis uterus needs to be individualised. The role of routine cervical cerclage and Strausman metroplasty should be reviewed until further reported experiences clarify the ideal management.

**Key Word:** uterus bicornis unicollis, enigma.

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Received Date: 12/03/2015 Revised Date: 21/03/2015 Accepted Date: 24/03/2015

## Access this article online

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DOI: 25 March 2015

## INTRODUCTION

Abnormal fusion of the Mullerian ducts during embryological life results in a variety of congenital uterine malformations; the etiology of such abnormalities remains unknown<sup>1,2</sup>. Uterine anomalies are estimated to occur in 0.3 to 3% of women and most studies report that 15% to 25% of women with such congenital uterine anomalies have problems with fertility and reproduction. These malformations are associated with miscarriage, premature labour, premature rupture and malpresentations<sup>3,4,5,6</sup>. Bicornuate uterus is a unification defect of the Mullerian ducts, and it is estimated to represent 10% to 39% of Mullerian duct anomalies<sup>7</sup>. In most cases, a bicornuate uterus is incidentally discovered when the pelvis is imaged. The most common symptomatic presentation is with early pregnancy loss and cervical incompetence<sup>7</sup>. The optimal way of

pregnancy follow up is controversial in patients with Mullerian fusion anomalies. We present a case of successful pregnancy in one horn of a bicornis unicollis uterus at our hospital.

## CASE REPORT

A 19 yr old primigravida came to our clinic with two months amenorrhoea. Her first ultrasound revealed a viable pregnancy in left horn of uterus. The 3-D ultrasound revealed uterus bicornis unicollis, subsequently confirmed at cesarean section (fig 1). She had regular antenatal visits which were uneventful upto 8 months of pregnancy. At 32 wks USG revealed decreased liquor and asymmetrical IUGR of the fetus. Doppler showed early fetoplacental insufficiency. Patient developed pregnancy induced hypertension (BP =150/90 mmHg, urine albumin=2+, edema feet). Antepartum fetal monitoring was done with Doppler. Tocolysis was stopped 48 hrs after giving corticosteroids. At 36wks of gestation patient was taken up for cesarean section in view of Doppler changes and severe oligohydramnios. Intraoperative findings showed a bicornuate uterus with pregnancy in the left horn, the right horn enlarged to about 14 wks size and tubes and ovaries on either sides were healthy. A live male child weighing 2.1kg (APGAR 9/10, 9/10) was delivered. Placenta was located in the upper segment. By exteriorising the uterus findings were confirmed. Communication between the two cavities was noted. She had uneventful post operative recovery.



Figure 1: Bicornuate uterus at cesarean



Figure 2: Adnexa and lower segment at cesarean

## DISCUSSION

Bicornuate uterus previously thought to be associated with infertility,<sup>8</sup> but recent studies have not confirmed such an association.<sup>9</sup> However, pregnancy in a bicornuate uterus is considered as a high risk that require extra monitoring. Adverse reproductive outcomes associated with pregnancy anomalous uterus are recurrent pregnancy loss, preterm birth, premature rupture of membranes, malpresentations, retained placenta and fetal deformity.<sup>10</sup> Preterm delivery due to cervical incompetence has been found to be associated with bicornuate uterus,<sup>10</sup> and this has lead some workers to advocate routine cervical cerclage for pregnant bicornuate uterus and other uterine anomaly.<sup>11</sup> Several cases of succesful term singleton and twin pregnancies had been reported without cervical cerclage,<sup>8,12</sup> as in our reported case. Hence the appropriateness of routine cervical cerclage for pregnant bicornuate uterus is questioned until further randomised studies. As in the present case, several cases of successful pregnancies in bicornuate uterus has been reported without surgical correction of the anomaly,<sup>8,12</sup> therefore, the Straussman metroplasty surgery should be reserved for cases of bicornuate uterus with recurrent preterm delivery that is not responding to cervical cerclage. Successful term pregnancies has been reported following such surgical intervention.<sup>13</sup> Complete bicornuate uterus has two separate cavities without any communication. The cavity remains of subnormal size with unilateral uterine perfusion. This could be the reason for development of placental insufficiency, restricted fetal growth, oligohydramnios, malpresentations and fetal deformity. These associations with bicounuate uterus needs further study to derieve at some plausible hypothesis due to rare occurence of pregnancy in anomalous uteri.

## CONCLUSION

Pregnancies of women with Mullerian anomalies has some potential obstetric complications. The management of pregnancy in uterus bicornis unicollis should be individualised. The role of routine cervical cerclage and

Straussman metroplasty should be reviewed until further reported expierences clarifies the ideal management.

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Source of Support: None Declared  
Conflict of Interest: None Declared