

East African Medical Journal Vol. 94 No. 4 April 2017

IMPACT OF SEPTATE UTERUS ON OBSTETRIC OUTCOME: CASE REPORT

D. K. Ondieki, MBChB, MMed, Department of Obstetrics and Gynaecology, College of Health Sciences, University of Nairobi, P.O. BOX 19676 – 00100, Nairobi, Wanyoike-Gichuhi, MBChB, MMed, Department of Obstetrics and Gynaecology, College of Health Sciences, University of Nairobi, P.O. BOX 19676 – 00100, Nairobi, B. Kihara, MBChB, MMed, Department of Obstetrics and Gynaecology, College of Health Services, University of Nairobi. PO Box 19676-00100, Nairobi and E. Cheserem, MBChB, MMed, Associate Professor, Department of Obstetrics and Gynaecology, College of Health Sciences, University of Nairobi, P.O. BOX 19676 – 00100, Nairobi.

Request for reprint to: Dr. D.K.Ondieki, University of Nairobi, College of Health Sciences, P.O. BOX19676-00100, Nairobi, Kenya.

IMPACT OF SEPTATE UTERUS ON OBSTETRIC OUTCOME: CASE REPORT

D.K Ondieki, J.W Gichuhi, A.B Kihara and E. Cheserem

SUMMARY

Septate uterus is mostly seen in women with infertility and recurrent pregnancy wastage. Reproductive outcome in women with septate uterus includes increased incidence of spontaneous abortion, premature birth, and abnormal foetal presentations. (1, 2) A case of septate uterus is presented and literature reviewed. In this case a patient with septate uterus was able to conceive spontaneously and carry the pregnancy to full term.

INTRODUCTION

Septate uterus is one of a group of mullerian malformations that affect the female genital system. It is the commonest uterine anomaly with a mean incidence of 35% followed by bicornuate uterus (25%) and arcuate uterus (20%). The malformed uterus and especially septate uterus is not an infertility factor in itself. It, however, may have a part in the delayed natural conception of women with mainly secondary infertility. Patients with uterine malformations seem to have impaired pregnancy outcomes as early as their first pregnancy. Overall term delivery rates in patients with untreated uterine malformations are only 50% and obstetric complications are more frequent. The pregnancy outcome of patients with untreated septate and bicornuate uterus is

poor, with term delivery rates of only 40%. Unicornuate and didelphys uterus have term delivery rates of 45%, and arcuate uterus is associated with a slightly better but still impaired pregnancy outcome with term delivery rates of 65%. (3) Fedele et al explained that a decrease in the sensitivity of the endometrium covering the septa of the malformed uteri to preovulatory hormonal changes could play a role in the pathogenesis of primary infertility in patients with septate uterus. (4) This case is presented to highlight the possibility of spontaneous conception and term delivery in patients with septate uterus.

CASE REPORT

A 30 year old primigravida, with a LMP of 26/5/15 and EDD of 2/3/16, was admitted at

40 weeks gestation in early labour. On examination she was found to be term, foetus in longitudinal lie, cephalic presentation, with a descent of four fifths; vaginally, the cervix was 2cm dilated, partially effaced with intact membranes. To improve the bishops score, prostaglandin E2 was used to ripen the cervix. She went into labour after the second prostaglandin. She was reviewed and was found to be having moderate contractions with a descent of three fifths, on vaginal examination she was 4 cm dilated with a firm well effaced cervix. Spontaneous rupture of membranes occurred during examination and drained meconium stained liquor grade 1 which had old meconium. A cardiotocograph was set and was reactive with a baseline rate of 140 beats per minute. She was given intravenous Nospa 40mg stat.

Two hours later the patient developed an urge to bear down and on vaginal examination she was found to be 6cm dilated with a foetal heart rate of 140-150 beats per minute. Oxytocin 5IU in 500mls dextrose normal saline was commenced at 5 drops per minute. However, 10 minutes later the foetus developed bradycardia of 80-90 beats per minute and vaginal examination revealed she was only 7cm dilated. Patient was taken in for emergency caesarean section.

Outcome of the caesarean section was a live female infant, who weighed 2880g and had an Apgar score of 9/1 and 10/5. Intraoperatively, patient was found to have a septate uterus and the photos are shown below.



The baby was extracted from the right side of the uterus. The placenta and membranes were delivered from the same side by controlled cord traction. Organised tissue was found in the left side of the uterus and samples were taken for histological analysis.

Surgery was completed and patient did well postoperatively. What was thought to be products of conception or placental tissue on the left side of the septal divide was found to be decidualized endometrium with no foetal tissue.

Patient was allowed home on the fourth postoperative day on antibiotics and analgesics. Of note, conception wasn't

difficult for this patient despite the septate uterus. She conceived after only 2 months of regular unprotected coitus.

DISCUSSION

Women with septate uterus have traditionally been considered to have poorer reproductive outcomes and lower pregnancy rates, in all conceptions whether spontaneous or induced with ART, compared with women with normal uteri. In our patient however, conception was spontaneous and she had an uneventful pregnancy. (5) They have also been considered to be high risk for preterm delivery. (6) This was not the case in our patient as she was able to carry her baby to full term.

Poor pregnancy outcome is believed, in theory, to be due to the septum's poor implantation environment. The septum provides a scanty vascular supply for the implanting embryo because of disruption by the septum of orderly arranged vessels in the intermediate myometrial layer of the uterus (7). The diagnosis is usually found on HSG during standard infertility evaluation. Differentiation between the uterine septum and the bicornuate uterus cannot be made definitively with the HSG alone. Further evaluation of the fundal contour must be done with laparoscopy, MRI or Ultrasound (8).

Management of septate uterus involves resection of the septum hysteroscopically, either using scissors or with a resectoscope. This is particularly important in patients presenting with primary infertility (especially unexplained primary infertility), recurrent pregnancy losses and preterm births. (9, 10) This might one day be an option for our patient if she ever presents with secondary infertility or recurrent pregnancy wastage. Transabdominal metroplasty is an option; however it is associated with significant morbidity and

need for caesarean section in subsequent pregnancies. Hysteroscopy is more feasible in that it avoids abdominal and uterine incisions and requires no long-term postoperative delay in attempting pregnancy. The surgical correction done is easy and less morbid when compared to other uterine congenital anomalies. In addition, subsequent pregnancy does not require caesarean section. (8, 11, 12, 13) Grimbizis et al found that asymptomatic patients would also benefit from hysteroscopic intervention in order to improve their chances of having successful delivery. (3) Had our patient been diagnosed prior to pregnancy, seeing that she was asymptomatic, she still would have benefited from hysteroscopic resection of the septum.

However, Heinonen was of a different opinion. In his study he found that complete septate uterus with longitudinal vaginal septum is not associated with primary infertility, and pregnancy may progress successfully without surgical treatment. His results did not support elective hysteroscopic incision of the septum in asymptomatic patients or before first pregnancy. (14)

This should form basis for future research with greater sample sizes in order to find out if asymptomatic patients with septate uterus do or do not require surgical intervention.

Raga et al found that the reproductive potential of the septate uterus showed a live birth rate of 62%, concluding that fertile patients with normal reproductive performance do exist, and Müllerian defects can permit an absolutely normal obstetric outcome. (15) This was evident in our patient who was able to conceive spontaneously and carry the pregnancy to term. Caesarean section performed was due to different unrelated reasons (non-reassuring foetal status).

In conclusion, septate uterus, a condition associated with infertility, recurrent

pregnancy wastage and overall poor pregnancy outcome, can also be relatively asymptomatic with spontaneous conception and successful live births.

REFERENCES

1. Fedele, L. and Bianchi, S. Hysteroscopicmetroplasty for septate uterus. *Obstet.Gynaecol.Clin. North. Am.* 1995;22: 473-489
2. Pabuccu, R. and Gomel, V. Reproductive outcome after hysteroscopicmetroplasty in women with septate uterus and otherwise unexplained infertility. *Fertil. Steril.* 2004; 81:1675-1678
3. Grimbizis, G.F, Camus, M., Tarlatzis, B.C, et al Clinical implications of uterine malformations and hysteroscopic treatment results. *Hum. Reprod.* 2001;7:161-174
4. Fedele, L., Bianchi, S., Marchini, M. et al. Ultrastructural aspects of endometrium in infertile women with septate uterus. *Fertil. Steril.* 1996;65:750-752
5. Paul, C. Lin. Reproductive Outcomes in Women with uterine Anomalies.*J. Women's Health.* 2004, 13: 33-39.
6. Hua, M., Odibo, A.O., Longman, R.E. et al. Congenital Uterine Anomalies and Adverse Pregnancy Outcome. *Am. J. Obstet. Gynaecol.* 2011;205:558e1-558e5
7. Candiani, G.B., Fedele, L., Zamberletti, D., De Virgiliis, D. and Carinelli, S. Endometrial pattern in malformed uteri. *Acta.Eur.Fertil.*1983;5:311.
8. Goldenberg, M., Sivian, E., Sharabi, Z. et al. Reproductive outcome following hysteroscopic management of intrauterine septum and adhesions. *Hum. Reprod.*1995;10:2663.
9. Mollo, A., Franciscis, P.D., Colacurci, N., et al. Hysteroscopic Resection of the Septum Improves the Pregnancy Rate of Women with Unexplained Infertility: a prospective controlled trial. *Fertil. Steril.* 2009; 91:2628-2631
10. Cararach, M., Penella, J., Ubeda, A. et al. Hysteroscopic incision of the septate uterus: scissors versus resectoscope. *Hum.Reprod.*1994; 9: 87-89
11. Israel, R., March, C.M. Hysteroscopic incision of the septate uterus. *Am. J. Obstet. Gynaecol.* 1984;149:66-73
12. March, C.M. and Israel, R. Hysteroscopic Management of Recurrent Abortion Caused By Septate Uterus. *Am. J. Obstet. Gynaecol.* 1987;156:834-842
13. Nouri, K., Ott, J., Huber, J.C. et al. Reproductive outcome after hysteroscopic septoplasty in patients with septate uterus - a retrospective cohort study and systematic review of the literature. *Repro. Bio. and Endocri.*2010;8:52.
14. Heinonen, P.K. Complete septate uterus with longitudinal vaginal septum. *Fertil. Steril.* 2006; 85:700-705
15. Raga, F., Bauset, C., Bonills-Musoles, et al. Reproductive impact of congenital Mullerian anomalies. *Hum .Reprod.* 1997; 12:2277-228