Uterine Didelphys with Pregnancy and Cervical Incompetence

Surg Cdr GD Maiti*, Maj P Tugnait⁺, Surg Cdr AK Anand[#], Surg Cdr S Garg**

MJAFI 2006; 62 : 200-201

Key Words : Uterine didelphys; Abdominal cerclage, Cervical incompetence

Introduction

The human uterus is of paramesonephric origin. Any degree of failure of fusion of the müllerian ducts or subsequent failure of resorption of the tissue results in a spectrum of clinical manifestations. Uterine didelphys is a condition of lateral fusion defect where both the müllerian ducts fail to fuse causing presence of two hemi-uteri and cervices. Pregnancy in such a uterus causes various complications, like spontaneous abortion, preterm labour, abnormal presentation and increased incidence of caesarean delivery [1,2]. The most common problem with uterine didelphys is cervical incompetence as a result of accommodation problem as well as congenital anatomical weakness of internal os [3].

Case Report

A 23 years old primigravida, wife of a serving naval personnel reported for antenatal care on 12 Jul 2002 with history of 14 weeks pregnancy. Her LMP was 04 Apr 2002 and EDD was 11 Jan 2003. Prior menstrual cycles were regular. There was no past history of urogenital surgery. On examination she was well-built with well-developed secondary sexual characters. Per abdominal examination revealed enlarged uterus of 16 weeks size, which was abnormally elongated and pointed towards fundus. Speculum examination revealed two cervical openings. Portio vaginalis of both cervices was flushed with the vagina. Per vaginum examination revealed two cervices without any portio vaginalis part and the gravid cervix was already soft and dilated to 2.5 cm. There was a left sided mass attached to the gravid uterus. The case was provisionally suspected as pregnancy in an anomalous uterus with cervical incompetence. Ultrasonography of pelvis and abdomen reported didelphys uterus with pregnancy in right hemi-uterus. There was ultrasonographic evidence of cervical incompetence in the form of beaking of internal os as well as short effective cervical length.

She was planned for abdominal cerclage as the portio vaginalis of the cervix was non-existent for vaginal encircage on 25 Jul 2002 at 16 weeks pregnancy under spinal anaesthesia. Abdomen was opened by Pfannenstiel incision and the gravid uterus along with the other hemi-uterus was eventrated. Uterovesical peritoneum was divided transversely and bladder was retracted down to expose the internal os. Both the needled ends of 5 mm merselene tape were passed from posterior leaf taking bite medial to blood vessels encircling the internal os of gravid uterus and medial needle was passed between the two hemi-cervices. The tape was tied anteriorly by a surgical knot at the level of internal os. The cut ends were tied together with silk for future identification. The peritoneum over lower segment was closed.

The patient had uneventful antenatal period except for a persistent breech presentation. She was taken up for elective LSCS on 17 Dec 2002 at 37 weeks. The abdomen was opened up through the same incision and the merselene suture was left undisturbed. The lower segment Kerr's incision was given to deliver a 2.8 Kg healthy male baby by breech extraction. Postoperative period remained uneventful. The patient is still on follow up.

Discussion

Müllerian anomaly rate is reported between 0.1-1% in general population with significantly higher rates associated with infertility and reproductive wastage [2, 4].

While unicornuate uterus was reported to have the poorest fetal survival, the didelphic uterus was believed to have 23% abortion rate and a bad obstetric outcome [2,5,6]. Golan et al [1990] diagnosed cervical incompetence in 30% of 98 women with müllerian anomaly. With cervical encircage or surgical correction incidence of term pregnancies in the group with documented cervical incompetence increased from 26 to 63% [3,7]. Therapeutic and prophylactic cervical

*Classified Specialist Obst & Gynae, **Graded Specialist Anaesthesiology, INHS Kalyani, Visakhapatnam, ⁺Graded Specialist Obst & Gynae, INHS Jeevanti, Goa, [#]Graded Specialist Radiodiagnosis, SO(M) FOST, Naval Base, Kochi.

Fig. 1 : Anterior view showing lower segment of gravid hemi-uterus and non-gravid hemi-uterus

Fig. 2 : Posterior view of didelphic gravid hemi-uterus

encirclages are indicated in women with uterine didelphys [8,9]. Transabdominal cerclage offers the best result for successful pregnancy outcome, where the cervix is short or hypoplastic [6,10]. The other popular and simple vaginal method of cervical encirclage such as McDonald or Shirodkar's method are performed where portio vaginalis of the cervix is available. The abdominal encirclage first described by Benson and Durfee in 1965 is very effective for treating cervical incompetence where vaginal cerclage is virtually not possible [6,11].

Conflicts of Interest

None identified

Fig. 3 : Merseline tape being tied anteriorly over lower segment after mobilising bladder

References

1. Heinonen PK. Uterus Didelphys: A report of 26 cases. *Eur J Obstet Gynecol Reprod Biology* 1984; 17: 345.
2. John A Rock, Lesley L Breech. Surgery for anomalies of mullerian ducts, in John A Rock, Hawards W. Jones 111. Editors. *TeLinde's Operative Gynecology*, 9th Ed. Lippincott Williams & Wilkins. 2003; 732-36.
3. Golan A et al. Cervical cerclage in pregnant anomalous uterus. *Int J Fertil* 1990; 35:164.
4. Decherney AH, Dlugi AM. Uterine factors in reproductive failure. *Prog Obstet Gynecol* 1984; 4:302.
5. Fedele L et al. Gestational aspect of uterus didelphys. *J Reprod Med* 1988;33:353.
6. VN Purandare. The incompetent cervix. In: Usha Krishnan, DK Tank, Shirish Daftary, Editors, *Pregnancy at risk; current concept*. 3rd ed. FOGSI Publication: Jaypee brothers 1997; 68-72.
7. Heinonen PK. Reproductive performance of women with uterine anomalies after abdominal or hysteroscopic myoplasty or no surgical treatment. *J Am Assoc Gynecol Laparosc* 1997; 4(3): 311-7.
8. Golan A, Caspri E. Congenital anomalies of mullerian tract. *Contemp Obstet Gynecol* 1992; 37:39.
9. Seidman DS et al. The role of cervical cerclage in management of uterine anomalies. *Surg Gynecol Obstet* 1991; 173:384.
10. Pregnancy after successful vaginaoplasty and cervical stenting for partial atresia of cervix. *Obst & Gynecol* 1990; 76:900.
11. Benson RC, Durfee RB. Transabdominal cervico-uterine cerclage during pregnancy for the treatment of cervical incompetence. *Obstet Gynecol* 1965; 25:145-55.