IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 22, Issue 1 Ser.11 (January. 2023), PP 53-55
www.iosrjournals.org

Impending Rupture of an Unscarred Gravid Bicornuate Uterus at Term

DR.SWARNA LAKSHIMI, DR. PREET AGARWAL
Department of obstetrics and gynaecology, Sri Ramachandra medical college,Chennai

Abstract
Uterine rupture of an unscarred pregnant uterus is extremely a rare eventCases of spontaneous rupture of an unscarred bicornuate pregnant uterus have been reported.We report a case of a primi gravida at termgestation, a known case of bicornuate uterus in spontaneous labour . In view of fetal distress she was taken up for emergency cesareansection. Intraoperatively impending uterine rupture was noted in midway between the right and left horn with pregnancy in the left horn with an intact serosa covering and same was repaired . Early diagnosis and timely intervention can prevent catastrophic events.

Key Words: *Bicornuate uterus, impending uterine rupture*

Date of Submission: 14-01-2023 Date of Acceptance: 29-01-2023

I. Introduction

The occurrence of all types of Mullerian duct abnormalities is estimated to be around 0.4%. A bicornuate uterus is estimated to occur in 0.1%-0.5 %. Of all the Mullerian duct abnormalities,the incidence of bicornuate uterus is 25 %. Uterine rupture in pregnancy is a rare but catastrophicevent. Rupture of an unscarred uterus may be caused by trauma or congenital or acquired weakness of the myometrium.Contributing factors include exposure to uterotonic drugs , high parity , uterine anomalies , advancing maternal age , dystocia , macrosomia , multiple gestation , abnormal placentation and short interpregnancy interval .

Bicornuate uterus is caused by incomplete fusion of the bilateral Mullerian system during embryogenesis.Helpful techniques for investigating Mullerian anomalies include transvaginal ultrasound , sonohysterography , hysterosalphingography , magnetic resonance imaging (MRI) and hysteroscopy . Recently 3D – ultrasound has been advocated as an excellent method to evaluate Mullerian malformations.Most of the uterine anomalies are first recognized and picked up during pregnancy . This is a rare case report of an impending uterine rupture of an unscarred bicornuate uterus who came in spontaneous labour.This case emphasises the importance of prompt diagnosis and management thereby preventing catastrophic events .

II. Case Report

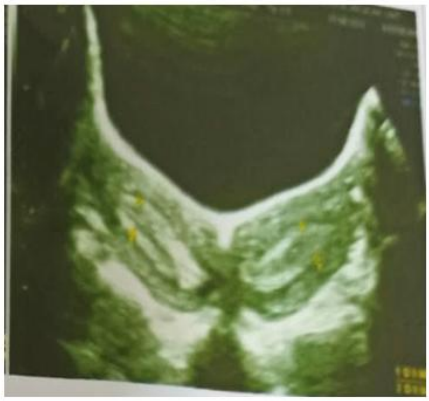
A 29- year old primigravida at 39 weeks + 4 days a booked patient,known case of bicornuate uterus ,presented to the casualty with complaints of pain abdomen and leaking p/v since 2 hours . She had previous regular menstrual cycle. She was married since three years.Scan done at first trimester showed bicorporeal septate uterus. She underwent elective cervical encerclage at 13 weeks and the same was removed at 36 weeks of gestation.Growth scan done and growth was found to be satisfactory .Patient had regular antenatal events . Patient and attenders were counselled during the antenatal period for elective lower segment caesarean section at 38 weeks of gestation after explaining the complications like prolonged labour,obstructed labour , PPH and uterine rupture . Both patient and attenders were not willing for the same and opted for a trail of labour.

Physical examination revealed a blood pressure of 100/60 mmhg and pulse rate of 92 beats per minute. Per abdominal examination revealed term size uteruswith cephalic presentation with five fifth palpable and getting three contraction lasting for twenty seconds in a period of ten minutes,nontense and non tender. Per speculum examination demonstrated a clear leak. Per vaginal examination revealed and uneffaced cervix with os closed and demonstrable liquor.On admission her baseline blood investigation were done and hemoglobin was 14.1 g/dl , total count of 11,860 cells/mm3 and a platelet count of 2.81 lakhs/mm3 . Blood group was O positive.After connecting the CTG , the CTG showed a prolonged bradycardia upto 70 beats . In view of fetaldistress the patient was taken up for emergency lower segment caesarean section after obtaining consent from the patient and attenders.

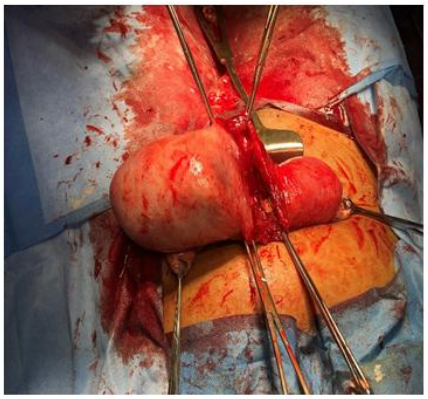
Under general anaesthesia,abdomen was opened by suprapubic transverse incision .Uterus was bicornuate with two well developed horns and pregnancy was noted in the left horn . Impending uterine rupture noted in the midway between the right and left horn with an intact papery serosa covering the midway and the

underlying fetal head was easily appreciable.Incision was given on the midway between the two horns and delivered a female baby weighing 2.65kg in cephalic presentation and cried after stimulation with an APGAR of 7/10 and 9/10 at 1 and 5 mins respectively . Placenta was fundoposterior and separated spontaneously.No angle extension or PPH was noted . Uterine incisionwas closed in 2 layers with 1 vicryl and perfect hemostasis was secured.Intraoperative blood loss was around 600 ml.

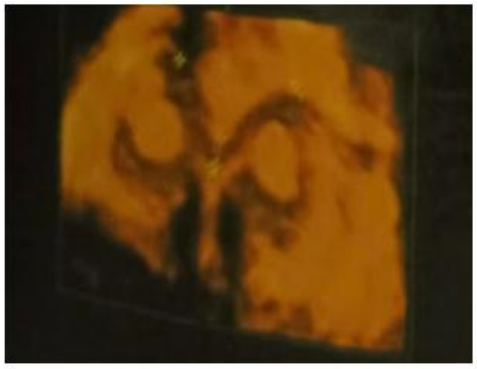
Postoperative period was uncomplicated. Both baby and the mother got discharged on post operative day 3. The patient and attenders were counselled for temporary methods of contraception as to space pregnancy,to report to antenatal checkups as soon as she conceives and elective caesarean delivery for the next pregnancy .



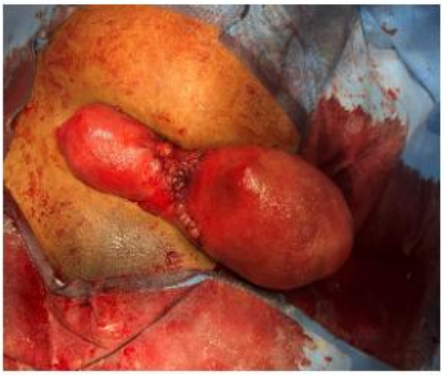
USG pelvis showing Bicornuate uterus



Intraoperative picture showing rent in the midway with the pregnancy in the left



3D ultrasound showing bicornuate uterus



Intraoperative picture showing repair of the the uterine rent

III. Discussion

Bicornuate uterus represents a double uterus with a single cervix and vagina resulting from the failure of the embryo genetic fusion of part of the Mullerian ducts.Each uterus has a single horn linked to the ipsilateral fallopian tube that faces its ovary.Pregnant uterine anomalies may be dificuilt to diagnose only by two dimensional (2-D) ultrasonography .

Rupture of an unscarred gravid uterus is an extremely rareevent.There are 35 reported case of rupture of primigravid uterus in literature in past 60 years.In such case rupture may be either traumatic or spontaneous. An abnormal fetal heart rate pattern, particularly bradycardia is the most common clinical manifestation of uterine rupture.Other potential findings include abdominal pain with or without hemodynamic instability , uterine tenderness , cessation of the contractions , loss of uterine contour , vaginal bleeding , hematuria and loss of fetal station . A high index of suspicion is required to diagnose intrapartum rupture in patients with unscared uterus.The diagnosis is usually made at laparotomy by visualization of the complete disruption of all uterine layers with active bleeding . Uterine abnormalities and high parity are recognized as major risk factor for spontaneous rupture of unscarred uterus .Other factors include obstetric maneuvers, malpresentation , transverse

lie , cephalopelvic disproportion given trail of labour , trauma due to uterine curettage , abnormal placentation (placenta percreta). The case presented here emphasizes the possibility of uterine rupture even in unscarred uterus with persistent unexplained abdominal pain and need for routine antenatal care,early diagnosis of the condition with high index of suspicion and imaging modalities .

Early surgical intervention is usually the key to successful treatment of uterine rupture.Although therapeutic management is total or subtotal hysterectomy , the hemostatic sutures can also be performed and helps preserve the reproductive function . Though there is no consensus on the optimum time of delivery,a reasonable approach is to plan repeat elective LSCS at 36 to 37 weeks of gestation .

IV. Conclusion

The most common cause of uterine rupture is presence of uterine scar. Measures aimed at reducing the high maternal and perinatal morbidity and mortality associated with uterine rupture includes health education of masses, proper antenatal care,early referral of at risk patients and supervised hospital delivery . Importance to be given to the pain symptom and that can guide to the diagnosis.

Reference

[1]. G j Hofmeyr L say A M Gulmezoglu WHO systematic review of maternal mortality and morbidity. The prevalence of uterine ruptureBJOG 2005112912211228
[2]. J Langton K Fishwik B kumar E C Nwosu spontaneous rupture of unscarred gravid uterus at 32 weeks Hum Reprod19971220662067
[3]. K OfirESheiner A Levy M Katz M Mazor uterine rupture : difference between a scarred and un scarred uterusAM J obstet Gynaecol20041912425429
[4]. K A Waish L V Baxi Rupture of the primigravid uterus : a review of the literature obstetgynekare surv200762353354
[5]. S Suner L Jagminas J E PeipertJ Linkakisfetal spontaneous rupture of a gravid uterus : a case report and literature review of uterine ruptureejEmerg med 1996142181185
[6]. R Chibber E Ei- Saleh Al Fadhli R uterine rupture and subsequent pregnancy outcome -how – safe it is ? A 25 – Year study) Maternal fetalneonatal med Med2010421
[7]. American college of obstetrics and gynaecologists committee opinion no 764: Medically indicated late and preterm and early term delivery obstet gynecol2019.
[8]. Sobande AA, Al -Sunaidi MI, Al Ghamdi JM, Archibong EI, fundal hiatus discovered in a presumably unscarred uterus at emergency cesarean section: an old perforation or rupture ?ActaObstetgynecolscand 2002;81:673-5
[9]. Kurdoglu M, KolusariA ,Yildizhan R , Adali E ,Sahin HG ,delayed diagnosis of an atypical rupture of an unscarred uterus due to assisted fundal pressure : a case report . Cases J 2009; 2: 79666
[10]. Jang DG, Lee GSR, Yoon JH, Lee SJ.PlacentaPercreta -induced uterine rupture diagnosed by laparoscopy in the first trimester . Int J Med sci 2011;8:424-7
[11]. Pan HS , Huang LW , Hwang JL , Lee CY , Tsai YL , Cheng WC. Uterine rupture in an unscarred uterus after application of fundal pressure . A Case report .JReprod Med 2002;47;1044-6.
[12]. Sant CL, Anderson PE.Misdiagnosed uterine rupture of asn advanced cornual pregnancy . Case reports in radiology Article ID 289103.Available at URL:http://www.hindawi,com/crim/radiology/2012/289103/.Accessed on February 15,2013.

DR.SWARNA LAKSHIMI, et. al. "Impending Rupture of an Unscarred Gravid Bicornuate Uterus at Term." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 22(1), 2023, pp. 53-55.