Indian Journal of Obstetrics and Gynecology Research 2020;7(3):451–454

Content available at: https://www.ipinnovative.com/open-access-journals

Indian Journal of Obstetrics and Gynecology Research

Journal homepage: www.ipinnovative.com

Case Report

Primary complete colporrhexis

Chandrakala Maran[1],*, Swapnaja[1], Mohanapriya[1]

[1]*Dept. of Obstetrics and Gynaecology, K.G. Hospital and PG Medical Institute, Coimbatore, Tamil Nadu, India*

ARTICLE INFO

Article history:
Received 29-09-2019
Accepted 23-04-2020
Available online 12-09-2020

Keywords:
Colporrhexis

ABSTRACT

Primary spontaneous colporrhexis is rare a condition characterised by rupture of the upper one third of the vaginal wall without extension from uterus or cervix in a parous women with an unscarred uterus. In our case the colporrhexis was also a complete one with rupture of the entire vaginal wall layers.
A 31-year old, second gravida was booked in our hospital at 36 wks of gestation. She had no comorbities. She had previous full term normal vaginal delivery of an alive baby weighing 2.75kg.
At 39 weeks and 4 days gestation she was admitted for induction of labour as she had borderline liquor. Induction was done with 2 doses of misoprostol 25mcg kept vaginally 4 hrs apart. 2 hours after placing the 2ndmisoprost she had spontaneous rupture of membranes with clear liquor draining PV. With strong uterine contractions. She delivered within 45 minutes a live healthy baby of 3kg weight. Placenta was delivered by AMTSL. Bleeding per vagina was within normal limits. During visualization of cervix and vagina prior to closure of episiotomy, omentum was seen coming out of upper part of posterior fornix of vagina. An irregular transverse rent was found and felt behind the cervix. Cervix was intact Uterus had contracted well. There was no excessive bleeding from vagina. Patients vitals were stable. Vagina was immediately packed and patient was shifted to OT after explaining about the unexpected complication and obtaining informed consent from patient and her relatives.
Under anaesthesia, Visualisation of cervix and Examination of uterus was done. They were found to be intact. No extension of episiotomy seen. There was a transverse tear of 5 cm involving the posterior fornix. The left edge of the tear was found to be extending slightly upwards for about 2 cm. Omentum was seen protruding through the rent. The edges were dilineated, omentum was pushed inside. The delineated edges of the rent were sutured with 1-0 vicryl with intermittent sutures in two layers. Complete hemostasis was ensured.

1. Introduction

Colporrhexis is defined as rupture of vaginal vault or upper one third of the vaginal wall. The Term and the condition had found mention in the previous editions of standard textbooks like Williams Obstetrics and in Clinical Obstetrics by Mudaliar and Menon in the chapter on Injuries to parturient canal. Probably due to its rarity this condition is not described in the latest Editions.

Colporrhexis is subdivided into primary or secondary, spontaneous or traumatic, complete or incomplete. Primary colporrhexis has been described as a vaginal vault tear not associated with cervical or uterine extension. Secondary colporrhexis is a vaginal vault tear which is associated with a rupture that has originated in the uterus or cervix and then extended to involve the vagina.

Incomplete colporrhexis include rupture of vaginal epithelium and the muscularis, whereas complete includes overlying peritoneum as well.

Most cases of colporrhexis are of traumatic origin associated with unskilled instrumental delivery, vaginal birth after C-section, myomectomy, precipitate labour and injudious use of oxytocis in labour. Spontaneous colporrhexis is one which is not associated with trauma

* *Corresponding author*.
E-mail address: drckmaran@gmail.com (C. Maran).

https://doi.org/10.18231/j.ijogr.2020.097

The aetiology of the rarer primary spontaneous colporrhexis is unknown and previous vaginal trauma has been implicated. Precipitate labour and use of oxytocics in labour are other factors described[1,2] in literature. A misdirection of the uterine axis due to a pendulous abdomen leading to marked anteversion of the uterus, ventroflexion of the uterus, evacuation of a full rectum after an enema, and prolapse leading to altered blood supply to the vagina are the other factors responsible. I describe here a case of primary spontaneous complete colporrhexis in a unassumingly healthy multigravida who had an unscarred uterus.

2. Case Report

A 31-year old, Second gravida was booked in our hospital at 36 wks of gestation. She had no antenatal complications in this pregnancy. She had previous full term normal vaginal delivery at our hospital 4 years back without any antepartum, intrapartum or postpartum complications. She had then delivered vaginally a live male baby of weight 2.75kg.

At 39 weeks and 4 days gestation she was admitted for induction of labour as she had borderline liquor. A Routine clinical examination was done on admission.

Her per abdominal examination revealed a lax abdominal wall. Uterus was full term, relaxed. Foetus was in cephalic presentation and vertex was unengaged. Fetal heart sound was regular in rate and rhythm. On PV examination she was 1cm dilated, 2cm length, membranes present and vertex at -3 station. Induction was initiated with tablet misoprostol 25mcg kept vaginally. She was assessed 4 hours later. As she had mild uterine contractions misoprostol was repeated. 2 hours after placing the 2^{nd} misoprost she had spontaneous rupture of membranes. Clear liquor was found draining PV. After rupture of membranes, PV examination was repeated. She was 2cm dilated with 1cm length of cervix and vertex at station-2. She then started having strong uterine contractions. She delivered within 45minutes a live healthy baby of 3kg weight. Placenta was delivered by AMTSL. Bleeding Per vagina was within normal limits. During visualization of cervix and vagina prior to closure of episiotomy, omentum was seen coming out of upper part of posterior fornix of vagina. An irregular transverse rent was found and felt behind the cervix. Cervix was intact Uterus had contracted well. There was no excessive bleeding from vagina. Patients vitals were stable. Vagina was immediately packed and patient was shifted to OT after explaining about the unexpected complication and obtaining informed consent from patient and her relatives.

Under anaesthesia, visualisation of cervix and Examination of uterus was done. They were found to be intact. Bladder, rectum and anal canal were unaffected. No extension of episiotomy seen. There was no excessive bleeding per vaginum. There was a transverse tear of 5 cm involving the posterior fornix. The left edge of the tear was found to be extending slightly upwards for about 2 cm. Omentum was seen protruding through the rent.

Fig. 1:

The edges were held with long Allis forceps. Using long Babcocks forceps, omentum was pushed inside. Patient was put in a head low position. The delineated edges of the rent were sutured with 1-ovicryl with intermittent sutures in two layers. Complete hemostasis was ensured.

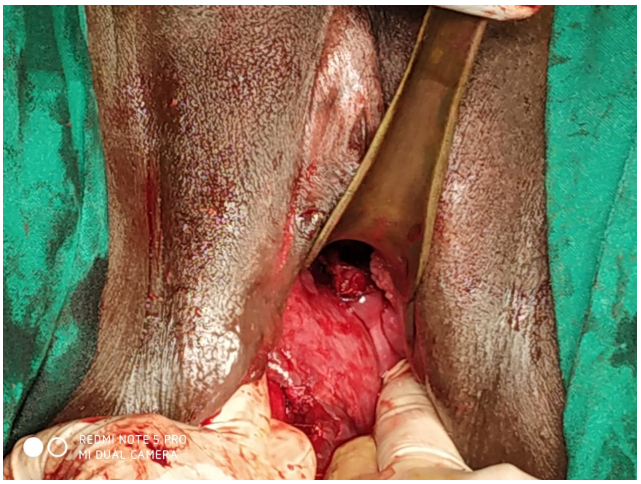

Fig. 2:

The apex of the episiotomy is clearly seen to be separate from the forniceal tear. Episiotomy wound was then closed in layers

Postoperative period was uneventful. She was discharged in a stable condition with advice to avoid constipation, intercourse and lifting heavy objects for 3 months.

3. Discussion

Colporrhexis is an unusual but dreaded complication which occurs spontaneously or due to trauma. The term 'Kolporrehxis' was first coined in 1875 by Hugenberger who described 40 cases from the literature.[3] Later, there were a lot of publications in olden literature.[4,5] Colporrhexis

Fig. 3:

without uterine rupture is termed primary colporrhexis and it is rare. Colporrhexis is usually associated with uterine rupture (secondary colporrhexis) and in a teaching institute its occurrence was reported in 7.5% of cases.[6] In 1932, Mahfouz[5] reported its association in 2.5% of uterine ruptures. Spontaneous colporrhexis was described in multiparous women especially in grandmultiparous women[3] and its occurrence in a primigravida is reported in only one case.[7]

The aetiology of colporrhexis was well described in the 1950s[3] where it was stated that colporrhexis used to occur most commonly as an extension of cervical tear or lower uterine segment tear due to unskillful and brutal attempts at delivery of the fetus by instrumental means.

Vaginal misoprostol has been one of the oxytocics incriminated in lacerations of uterus and cervix. The safe dose interval of misoprostal for labour induction is 25 μg every 4 h though various regimens exist and the uterine rupture rate varies from 1.4% to 5.6% with the usage of misoprostal.[8] A case of cervical laceration associated with the use of misoprostol was reported by Oyelese et al.[9]

In our case the patient was a 2^{nd} gravida with a previous full Term normal delivery. She now had a vaginal delivery without instrumental assistance, but had a colporrhexis. Hence it has the been presented for its rarity. The reasons for vault rupture in our case were probably.

1. Pendulous abdomen- lax abdominal wall causing altered utero vaginal axis exerting undue pressure over an associated weak vaginal vault.
2. Precipitate Labour- Rapid progression and very short active phase of labour and second stage of labour may have led to shearing effect of the descending head on the upper posterior vaginal wall.
3. Vaginal misoprostol although it was used with a safe dose interval could have caused this vaginal laceration.

4. Conclusion

Spontaneous trauma to genital tract during vaginal delivery without instrumentation is very rare. Though such cases are rare we should keep in mind that unprecedented concealed rupture of vagina and uterus do occur. Each women in labour should be monitored carefully and more vigilance is required in the unsuspected multigravidas especially those with lax abdominal muscles. Precipitate labour is common in multiparous women. Vigorous uterine contractions with a noncompliant vaginal wall is incriminated in vaginal lacerations. Although it is not possible to modify these contractions we have to analyse if controlled fetal head delivery may help to avoid such complications. Vaginal misoprostol has been implicated in cervical lacerations and uterine ruptures.

Further research would throw light if misoprostol could cause vault lacerations even if used in a proper dose interval. Diagnosis of colporrhexis is clinical. Concealed associated Intraperitoneal haemorrhage can be assessed with ultrasound scan of abdomen and pelvis. Management depends on the maternal hemodynamics and extent of tear. If patient is stable as assessed by vitals and there is no excessive haemorrhage or evidence of retroperitoneal hematoma, suturing of the laceration is done by vaginal route under anaesthesia. If patient is hemodynamically unstable with signs of inaccessible extension or retroperitoneal hematoma laparotomy and appropriate management is mandatory.

5. Source of Funding

None.

6. Conflict of Interest

None.

References

1. Brander JH, Buchman MI. Rupture of the vagina during spontaneous delivery. *Obstet Gynecol*. 1964;24:151–4.
2. Osterling DL, Mccreedy PA, Mcfee JG, Thompson HE. Primary complete colporrhexis. *Obstet Gynecol*. 1971;38:96–8.
3. Resnick L, Muller HW. Colporrhexis with a report of a case of spontaneous primary rupture of the posterior vaginal vault during labour. *S Afr Med J*. 1955;27:818–21.
4. Gamble TO. Colporrhexis, or rupture of the vault of the vagina, with the report of a case. *Am J Obstet Gynecol*. 1927;14(6):766.
5. Bey NM. Rupture of the Uterus. *Int J Obstet Gynaecol*. 1932;39(4):743–58.
6. Sahu L. A 10 year analysis of uterine rupture in a teaching institution. *J Obstet Gynaecol India*. 2006;56:502–6.
7. Sharma KK, Firth KM. Primary complete colporrhexis in primigravida. *Br J Obstet Gynaecol*. 1993;100:1142–4.
8. Weeks A, Alfirevic Z, Faúndes A, Hofmeyr GJ, Safar P, Wing D. Misoprostol for induction of labor with a live fetus. *International Journal of Gynecology & Obstetrics*. 2007;99:S194–7.
9. Oyelese Y, Landy HJ, Collea JV. Cervical laceration associated with misoprostol induction. *Int J Gynecol Obstet*. 2001;73(2):161–2.

Author biography

Chandrakala Maran Associate Professor

Swapnaja Post Graduate Student

Mohanapriya Post Graduate Student

Cite this article: Maran C, Swapnaja , Mohanapriya . Primary complete colporrhexis. *Indian J Obstet Gynecol Res* 2020;7(3):451-454.