Case Report

Primary complete colporrhesis

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ABSTRACT

Primary spontaneous colporrhesis 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 colporrhesis 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 comorbidities. 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.

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1. Introduction

Colporrhesis 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.

Colporrhesis is subdivided into primary or secondary, spontaneous or traumatic, complete or incomplete. Primary colporrhesis has been described as a vaginal vault tear not associated with cervical or uterine extension. Secondary colporrhesis 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 colporrhesis include rupture of vaginal epithelium and the muscularis, whereas complete includes overlying peritoneum as well.

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

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. 1:](image)

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 ‘Kolporrhexis’ 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
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, Mahfouz5 reported its association in 2.5% of
uterine ruptures. Spontaneous colporrhexis was described
in multiparous women especially in grandmultiparous
women3 and its occurrence in a primigravida is reported in
only one case.7
The aetiology of colporrhexis was well described in the
1950s3 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 2nd 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 hemotoma, suturing of the laceration
is done by vaginal route under anaesthesia. If patient is
hemodynamically unstable with signs of inaccessible
extension or retroperitoneal hemotoma laparotomy and
appropriate management is mandatory.

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6. Conflict of Interest
None.

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delivery. Obstet Gynecol. 1964;24:151–4.
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