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Primary Spontaneous Anterior Colporrhexis During Labour in a Primigravida: A Rare Case Report

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Abstract: Primary Colporrhexis Is A Very Rare Condition Which Is Characterized By Rupture Of Upper One Third Of The Vaginal Wall Without Any Extension From Uterus Or Cervix In A Parous Woman With An Unscarred Uterus. This Is A Case Report Of A 20-Year-Old Primigravida With Gestational Age Of 37 Weeks Admitted With Prom; Who Had Persistent Bleeding Per Vagina Due To An Anterior Colporrhexis During Labour And Taken-Up Immediately For Emergency Lscs. Such Conditions Are Very Rare, But These Cases Sets An Excellent Example Of Need For Extra Vigilance While Monitoring Every Women In Labour And Prompt Management To Prevent Fetal Morbidity And Maternal Morbidity & Mortality.

Keywords**:** *Colporrhexis, Caesarean Section, Hysterectomy.*

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I. INTRODUCTION

Colporrhexis is the rupture or tear of the vaginal vault or upper third of vagina most commonly occurring during labour in a multiparous woman with pendulous abdomen or previous uterine scar (as in previous caesarean section or Myomectomy) or in precipitate labour. It is derived from a Greek word Kolpos- womb/vagina; rhexis- rupture/split/tear. Nevertheless, it can occur in a presumable normal tissue of uterus instead of no previous scars /deliveries.

➢ *It is Subdivided as Follows:*

- Primary and secondary where the vaginal vault tear is not associated with cervical and uterine extension and is associated with extension to cervix and uterus respectively.
- Incomplete and complete where incomplete is rupture of vaginal epithelium and muscularis and complete includes overlying peritoneum
- Spontaneous and traumatic where spontaneous is not associated with any trauma. Most of the colporrhexis are traumatic in origin associated with inexperienced instrumental deliveries, vaginal birth after caesarean delivery, myomectomy or precipitate labour.

The aetiology of the rare primary spontaneous colporrhexis is unknown and previous vaginal trauma has been implicated. Precipitate labour and use of oxytocics in labour are other factors described responsible for this event. [1,2] A misdirection of the uterine axis due to a pendulous abdomen leading to marked anteversion or 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 anterior colporrhexis that occurred in a primigravida with no comorbities during labour which we intervened at an appropriate time and delivered a live baby and prevented hysterectomy.

II. CASE REPORT

A 20-year-old primigravida at 37 weeks of gestation, no comorbidities, booked and immunized at our hospital was admitted with PROM. At the time of admission, her vitals were stable and on per abdominal examination uterus term size relaxed with good FHR at 145 bpm and on per vaginal examination,cervix is soft, midposition, 25% effaced and 2cm dilated, vertex at -3 station, membranes absent with few cc. of clear liquor draining. She was induced with tablet Misoprostol 25mcg sublingually after 12 hours of leaking per vaginum and was monitored for uterine contractions and FHR.Continuous CTG monitoring was done. She was found

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to have bleeding per vaginum and on examination her pulse rate is 86 bpm and blood pressure is 110/70 mm of Hg. On per abdominal examination ,uterus is non tense and non tender with 3 contractions lasting for 25 to 30 seconds in 10 minutes and on per speculum examination, bleeding present and a tear noted on upper third of anterior vaginal wall approximately 4-5 cms.

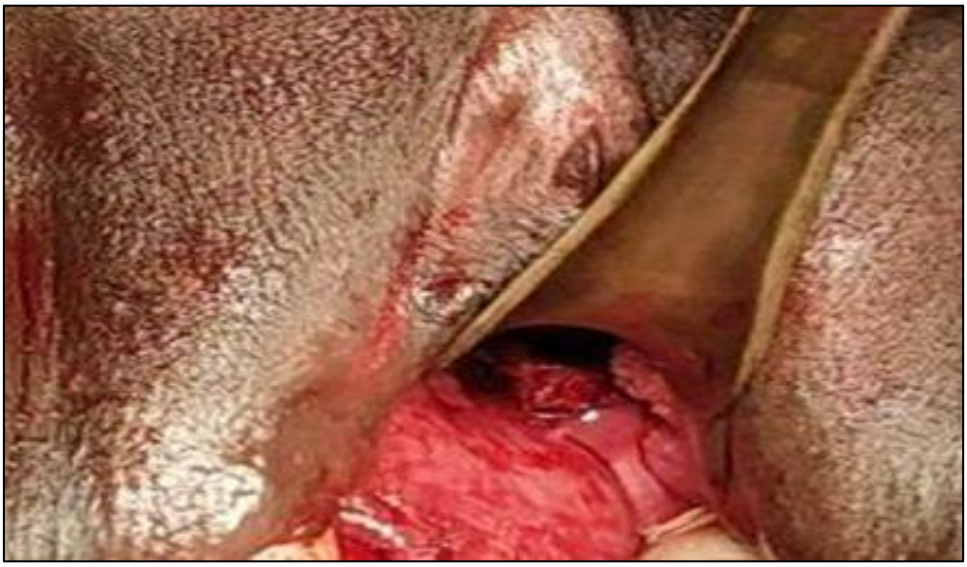

Fig 1 Per Speculum Examination of Vaginal Wall.

Vaginal packing was done, the condition was informed to patient and her attenders and consent obtained. She was taken up for Emergency LSCS. Under General anaesthesia, A live boy baby weighing 3 kgs with APGAR 8/10 at 1 minute and 9/10 at 5 minutes was delivered and placenta and its membranes delivered in total and uterus explored, no tears or bleeding noted. Injection carbetocin 100 micrograms IM given, uterus was contracted well and uterine incision closed in double layer. Patient placed in lithotomy position and vaginal pack removed, on per speculum examination, a tear noted on upper third of anterior vaginal wall 4-5 cm and was repaired with 1-vicryl. Haemostasis achieved and Injection Tranexamic acid 1gm IV given and the total blood loss was estimated to be 1.2 litres , one unit packed cell, platelet and FFP transfused intraoperatively. Patient developed one-spike of fever and was given a course of IV antibiotics for 7 days postoperatively. Postoperative period was uneventful and suture removal done on day 7 and patient was discharged. Post natal followup after 2 weeks and the patient was stable.

III. DISCUSSION

Colporrhexis is a dreadful complication which occurs spontaneously or due to trauma. It can occur in both pregnant and non-pregnant state. [3,4] In pregnant women during labour or due to vaginal delivery followed by instrumental delivery, in a scarred uterus and followed by precipitate labour, in non-pregnant women in case of forceful coitus and foreign bodies. Most commonly seen in an already weakened vagina. Lacerations of upper vagina are rare and occurs as a result of use of rotational forceps. [2] Clinical features are similar to that of ruptured uterus i.e; sudden cessation of labour pains, followed by continuous pain and vaginal bleeding or signs and symptoms of shock.

The aetiology of colporrhexis was well described in the 1950s[6] 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 misoprostol 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 misoprostol.[7] A case of cervical laceration associated with the use of misoprostol was reported by Oyelese et al.[8]

IV. CONCLUSION

Spontaneous trauma to genital tract during vaginal delivery without instrumentation is rare. Though these type of cases are rare we should keep in mind that concealed rupture of vagina and uterus do occur. All women in labour have to be monitored carefully and more vigilance is required irrespective of comorbidities. Persistent vaginal bleeding during labour should prompt careful speculum examination. Precipitate labour and abdominal laxity is common in multiparous women which can lead to colporrhexis. Vigorous uterine contractions with a non-compliant vaginal wall is one more possibilty for vaginal lacerations. Vaginal misoprostol has been implicated in cervical lacerations and uterine ruptures but further more studies have to be undertaken to prove the above.

Diagnosis of colporrhexis is mostly clinically made. Management depends on the maternal hemodynamic stability and extent of tear. If patient is stable and there is no excessive haemorrhage or evidence of retroperitoneal hematoma, a simple suturing of the laceration is done by vaginal route

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under anaesthesia. If patient is hemodynamically unstable with signs of extension from uterus and cervix or retro peritoneal hematoma, laparotomy and a prompt management is obligatory. Here in our case, we resolved the complication in an optimal time-frame and prevented fetal complications and serious maternal morbidity like hysterectomy and maternal mortality. The key learning point that diagnosis was made before progression to major maternal morbidity.

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