

# Isolated Recto-Vaginal Fistula: A Dreaded Complication of Precipitate Labor Managed Early and Easily!

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## Abstract

**Background:** Obstetric injuries are the most common cause of rectovaginal fistulas. Such injuries include perineal tears extending to rectum, episiotomy site infection or extension of an episiotomy. These are usually preceded by prolonged and difficult labor.

**Case:** This case report illustrates formation of a rectovaginal fistula after precipitate labor. There was no associated third or fourth degree perineal tear. Diagnosis and successful management was done due to strict vigilance.

**Conclusion:** Rectovaginal fistulas are usually preceded by difficult, prolonged and obstructed labor but may also occur after precipitate labor. An index of suspicion and digital rectal examination in cases of posterior vaginal tears should be done to rule out recto-vaginal fistula.

**Keywords:** Recto-vaginal fistula; Precipitate labor; RVF Repair; Obstetric RVF

## Introduction

Rectovaginal fistulas occur far less frequently, comprising 10% of obstetric fistulas which itself is not so common in modern obstetrics these days [1]. Midline episiotomies resulting in third or fourth degree perineal tear is the greatest risk factor for development of a recto-vaginal fistula. In developing countries, obstructed labor is the most common cause of recto-vaginal fistula (RVF). Although majority of perineal injuries are repaired following delivery, dehiscence can occur due to infection or otherwise and lead to formation of fistula or sphincter dysfunction. This is usually evident by third or fourth day of delivery. Rectovaginal fistula, following infection and episiotomy dehiscence, present low in the rectovaginal septum but may extend higher especially if birth trauma leads to extension of tear. Risk factors include infant weighing more than 4 kg, instrumental delivery, prolonged second stage of labor, midline episiotomy, occipito-posterior position and failure of detection of sub optimal repair of sphincter injury [2]. Lack of skilled attendance at birth, lack of emergency obstetric care, and lack of transportation to maternity facilities contribute to the high rates of prolonged and obstructed labor and resultant fistula in developing countries. Precipitate labor is another risk factor as seen in this case. The strong index of suspicion necessary for any delivery personnel, to diagnose this condition in cases of posterior small tears, lead us to report this case.

## Case Report

A 24 years old lady, G<sub>2</sub>P<sub>1</sub>L<sub>0</sub>, who had a previous preterm vaginal delivery, presented to the antenatal OPD of a tertiary care hospital at 40 weeks and 5 days for antenatal check-up. Her previous delivery was uneventful but the baby expired after three months due to prematurity complications. She had a history of severe fetal growth restriction in first pregnancy with a birth weight of 900 grams. Baby expired on third post-partum day. No records of previous pregnancy were available. She had no medical or surgical illness. Patient was not in labor and was admitted for induction of labor in view of postdatism after pelvic assessment for vaginal delivery. Her Bishops score was 4 and a prostaglandin E<sub>2</sub> gel was instilled for induction. There was no evidence of any uterine hyperstimulation or fetal distress. She delivered vaginally in 3 hours and 40 minutes after instillation of prostaglandin E<sub>2</sub> gel. She delivered

a female baby of 3020 grams whose Apgar score at 1, 5 and 10 minutes was 9. The duration of second stage was 15 minutes. Placenta delivered completely and there was no post partum hemorrhage. Exploration of vagina and perineum after delivery was performed and a small 1 cm second degree perineal tear was found at the muco-cutaneous junction. There was a small 2 cm tear in the posterior vaginal wall 3 cm above the introitus. A digital rectal examination was done and it was found that there was a communication between the vaginal tear and the rectum 3 cm above the anal verge just at the junction of rectum with anal canal.

Patient was shifted to operation theatre at once for primary repair of the recto-vaginal fistula under spinal anaesthesia. The rectal mucosa, rectovaginal fascia and then the vaginal mucosa was stitched using 3-0 vicryl. The small perineal tear was stitched. Digital rectal examination was done to evaluate the integrity of anal sphincter which was found to be intact. The patient was kept nil per orally for first 48 hours in post-operative period and thereafter allowed liquid diet, semi-solid and normal diet sequentially. Perineal care, Sitz bath and Stool softners were provided. Antibiotics (Ampicillin and metronidazole) were given for a week. She had no complaints of incontinence in post-operative period. She was counseled regarding practicing abstinence for 3 months. Patient was asymptomatic during her 4 weeks follow-up.

## Discussion

Recto-vaginal fistulas account for less than 5% of all rectal fistulas [3]. Obstetric injuries is the most common cause of these types of fistula. In this patient, the RVF was not preceded by any difficult delivery, obstructed labor or third or fourth degree perineal tear. Most of the

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cases of obstetric RVF are reported to be associated with these factors [4,5]. Instrumental deliveries are by far the most significant risk factor for third and fourth degree perineal lacerations and subsequent RVF formation. An association of rectovaginal fistula with precipitate labor has also been seen. In a study [6] rectovaginal fistulae were associated with precipitate labor in 11% cases but all these cases have third or fourth degree perineal tear. In this patient, precipitate labor did not lead to perineal tear but an isolated fistula was formed. The mechanism could have been sudden distention and laceration of tissues leading to tear in the vagina and rectum. Obstetric fistula can be midzone fistulas which are secondary to pressure necrosis of the rectovaginal septum resulting from prolonged or obstructed labor. Since prolonged labor is rarely permitted in modern obstetrics, the obstetric fistulas are usually low i.e. lying at the anorectal ring and associated with perineal injuries. High fistulas are usually associated with inflammatory bowel disease like Crohn's disease, radiation induced, neoplastic, postoperative or posttraumatic. Obstetric fistulas are usually low and small as in this case (3 cm from anal opening and 2 cm in diameter). Recto-vaginal fistulas are usually diagnosed clinically as the patients' symptoms are very suggestive and clinical examination confirms it. But in this case it was diagnosed immediately after delivery due to vigilance and hence it was immediately repaired. Fistula may not be recognized early in the postpartum because of difficulty with post-delivery examination or later because of problems with constipation. There is significant amount of hematoma and edema to make the postpartum assessment difficult. In this case it was diagnosed immediately before any hematoma or edema sets in. In some cases of RVF who present very late and are very small, few diagnostic tests may be required to confirm the diagnosis and plan the management like vaginogram, fistulogram, barium enema etc. None of these tests were required in this case as it was a freshly formed fistula with no involvement of anal sphincter. The fistula in this case was repaired immediately after it was diagnosed. The majority of fistulas secondary to obstetric trauma may be repaired early. Repair can be deferred until the infection, inflammation, induration or local cellulitis subsides. The decision of time of surgery for RVF should depend on the tissue condition rather than an arbitrary time period. In this case as the fistula was freshly formed, the tissues were healthy hence an immediate

repair was done and it resulted in a successful repair. Results of fistula repair are usually good with success rates being 85-95% according to some studies [6,7].

Post operative care is very important in these patients. A low residue diet and stool softeners are recommended. Sitzbath is comforting and soothing for the patient and helps in maintaining perineal hygiene which is a very important aspect of post-operative care in these patients. Patients are advised to abstain from intercourse for a minimum of 8 weeks. This prevents coital trauma and therefore, fistula dehiscence and recurrence. Women with simple fistulas, having primary repair can have vaginal delivery in future. However, women with complicated and delayed fistula repairs should not undergo vaginal delivery.

## Conclusion

Recto-vaginal fistulas are less common obstetric fistulas and not always associated with prolonged, difficult or instrumental deliveries. They are easy to repair if diagnosed early at time of delivery. They should be suspected in cases of posterior vaginal tear. Post-operative care is a very important aspect of management for a successful repair.

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