

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

## Introduction

Rectovaginal stulas occur far less frequently, comprising 10% of obstetric stulas 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 stula. In developing countries, obstructed labor is the most common cause of recto-vaginal stula (RVF). Although majority of perineal injuries are repaired following delivery, dehiscence can occur due to infection or otherwise and lead to formation of stula or sphincter dysfunction. It is usually evident by third or fourth day of delivery. Rectovaginal stula, 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 stula in developing countries. Precipitate labor is another risk factor as seen in this case. A 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,  $2B_1L_0$  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

cases of obstetric RVF are reported to be associated with these factors [4,5]. Instrumental deliveries are by far the most significant risk factors for third and fourth degree perineal lacerations and subsequent RVF formation. An association of rectovaginal stula with precipitate labor has also been seen. In a study [6] rectovaginal stulae 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 stula was formed. The mechanism could have been sudden distention and laceration of tissues leading to tear in the vagina and rectum. Obstetric stula can be midzone stulas 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 stulas are usually low i.e. lying at the anorectal ring and associated with perineal injuries. High stulas are usually associated with inflammatory bowel disease like Crohn's disease, radiation induced, neoplastic, postoperative or posttraumatic. Obstetric stulas are usually low and small in size. In this case (3 cm from anal opening and 2 cm in diameter). Recto-vaginal stulas 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, stulogram, barium enema etc. None of these tests were required in this case as it was a freshly formed stula with no involvement of anal sphincter. The stula in this case was repaired immediately after it was diagnosed. The majority of stulas 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 stula was freshly formed, the tissues were healthy hence an immediate repair was done and it resulted in a successful repair. Results of stula 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, stula dehiscence and recurrence. Women with simple stulas, having primary repair can have vaginal delivery in future. However, women with complicated and delayed stula repairs should not undergo vaginal delivery.

### Conclusion

Recto-vaginal stulas are less common obstetric stulas 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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