CASE REPORT

Secondary Repair of Third Degree Perineal Tear Leading to Fecal Incontinence in 2 Cases

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Abstract:

Obstetric injury is the commonest cause of anal incontinence. According to Mr. Abdul H Sultan and Miss RaneeThakar, UK, who have done extensive work in this field, 'Every woman who has a vaginal delivery has a 3rd or 4th degree tear until proved otherwise and a 3rd or 4th degree tear cannot be excluded without a rectal examination'. We report two cases of anal incontinence as a result of third degree perineal tear and complete disruption of the perineum secondary to childbirth. Secondary repair of anal sphincter and perineal reconstruction in a rural tertiary care hospital rendered excellent immediate clinical result.

Key words:

Obstetric injury, Perineal Tear, vaginal delivery

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Introduction:

Obstetric injury is the commonest cause of perineal and anal sphincter injury resulting in lack of bowel control. 4 to 6% of women who have vaginal deliveries will suffer from faecal incontinence [(1)].However there is

a wide variation in the reported incidence of anal sphincter muscle injury from childbirth, with the true incidence likely to be approximately 11% of postpartum women [(2)].The damage may be overt or occult. Faecal and or flatalincontinence resulting from this damage is a debilitating problem with significant medical,psychological, social and economic implications. Treatment options include conservative, non-operative interventions (for example pelvic floor muscle training, biofeedback, drugs) and surgical procedures. A surgical procedure may be aimed at correcting an obvious mechanical defect, or augmenting a functionally deficient but structurally intact sphincter complex. Sometimes the tear is missed and the repair is performed months or years after the injury, usually by a specially trained surgeon (secondary repair). A secondary repair may also be performed when a primary repair has been unsuccessful.Secondary repair is usually offered to patients with gross faecal incontinence [(3)]. The outcome depends on the extent of the anal sphincter damage and associated neurological injury [(3)].

Case I:

28yrs old, mother of two presented in the outpatient department with complaints of incontinence for gas and stools since her last delivery 2yrs ago. Her first delivery was a full term normal delivery, seven years back. Left mediolateralepisiotomy was given then and she had anuneventfull postnatal period. Two years back she had second childbirth. It was a full term outlet forceps delivery for prolonged II stage of labour. The baby weight was 3000gms. She had a third degree perineal tear then, which was sutured by the attending obstetrician in the delivery room under local anesthesia. On the seventh postnatal day she developed incontinence for gas followed by incontinence for stools. This incontinence worsened over time and since then she has flatal and faecal incontinence.

Her general and systemic examinations were normal. On local examination the perineum was absent. The posterior vaginal wall and the anterior wall of anal canal were fused. The anal opening was patulous with stains of fecal material on the perianal skin. Pervaginal examination revealed a wide patulous vagina. On per rectal examination the tissue between the anus and vagina was thinned out and she could not tighten her spincters over the examining finger.

Subsequently the patientunderwentsecondary perineal repair under regional anaesthesia. It was a 3b degree tear. Layered repair was done after

identification of the external sphincter ends by overlapping method with 1-0 polyglactin (Vicryl). Redunadantposterior vaginal mucosa was cut, perineum reconstructed and perianal skin was sutured longitudinally resulting in lengthening of the distance between posterior four cheet and anal opening. Postoperatively perineal care was instituted, oral feedings were started after 48 hours. She was put on broad spectrum antibiotics, analgesics and laxatives. Postoperative recovery was good and one month after repair she had developed good continence for flatus, liquids and solids.

Case II:

The second patient, was a 40 yr old lady complaining of incontinenc for gas, liquid and solid stools. Seventeen years ago she had a full term vaginal delivery at home conducted by a traditional birth attended. In this delivery there was abig perineal tear with lots of bleeding. Surprisingly she did not seek any medical care and the wound healed gradually but she developed incontinence for flatus. Her second pregnancy fifteen years back terminated in a full term precipitates vaginal delivery at home. It was after this puerperal period she realised that there was no skin between the vagina and the anal opening. She could feel only a small thin filmy layer in between. Flatal incontinence continued but now she developed urgency for stools as well. Her third delivery thirteen years ago was again a precipitate full term vaginal delivery at home. Now immediately after this delivery faecal incontinence worsened. After her second delivery she could hold her stools for sometime, but now she could not after the last childbirth.

On local examination there was deficient perineum, anterior anal wall was fused with posterior vaginal wall and the anterior margin of anal opening was withdrawn under the vaginal mucosa. Her anal sphincter had no tone. Secondary perineal repair was done under regional anesthesia. It was a 3c degree tear. Repair was done by Noble Mengert's pull through procedure. External anal sphincter was plicated by overlapping method. The internal sphincter was sutured separately. After cutting the excess vaginal wall and perineal reconstruction, the mucosa and skin was closed Anal mucosa was sutured to the perineal skin.

Postoperative care for both the patients was same and she made a good recovery. She has developed good continence for solid and semisolid stools till date and we expect she develops total flatal and faecal continence over a period of time.

After repair & Perineum reconstruction

Discussion:

In obstetric practice, the anal sphincters may be injured at the time of vaginal delivery. These injuries are classified as third degree lacerations when the external anal sphincters (EAS) are lacerated and fourth degree when the ano-rectal mucosa is breached. Obstetric trauma is a major cause of anal incontinence but it is only recently that attention has been focused on this subject ([1, 4,5]. Occiptoposterior position during delivery.primigravida, high birth weight, prolonged II stage are the risk factors for anal sphincter tear. Forceps delivery and nulliparity are also risk factors for recognized anal sphincter injury at the time of vaginal delivery.

A trend towards an increasing incidence of third or fourth-degree perineal tears by 2 to7 fold indicates better detection, reporting, awareness [(2)]. Majority of the sphincter tears can be identified clinically by a suitably trained clinician. In those with recognized tears at the time of delivery repair should be performed using long term absorbable sutures. Patients presenting later who fail either conservative treatment, primary repair or are missed and who have a substantial sphincter disruption, elective repair, may be attempted [(2)]. There is a significant relationship between a sphincter tear that was symptomatic after delivery and continence deterioration (28%) sustained at 5 and 10 years. However, no relationship was found over 10 years for those women who sustained a sphincter tear but whose continence did not deteriorate postpartum [(6)].

On immediate diagnosis after delivery the surgical strategy should be identification

of additional birth injuries and exact classification (Table 1) of the perineal tear by means of speculum inspection and digital rectal examination [1]. If neccessary first management of cervical and high vaginal tears should be undertaken and then management of the perineal tear.

Table 1 Classification of Perineal tear

First degree	Injury to perineal skin
Second degree	Injury to perineum involving perineal muscles but not involving the anal sphincters
Third degree 3a: 3b: 3c:	Injury to perineum involving the anal sphincter complex. <50% of ext anal sphincter thickness involved >50% EAS thickness involved both EAS and IAS involved
Fourth degree	Involves anal sphincter complex (EAS and IAS) and anorectal mucosa

Delaying the repair should not be recommended routinely, but can be an alternative under special circumstances when appropriate surgical expertise is not readily available. If missed or tear in cases of domicillary delivery,many do not seek medical attention because of embarrassment. In these secondary repair should be done after a proper diagnosis by a well trained surgeon in an appropriate setting [7].

Old third and fourth degree perineal tears with partial or complete loss of anal sphincter and perineum can be repaired either by the layered method of repair or the Warren flap procedure or the Noble-Mengert anal pullthrough procedure. The layered method provides

optimal surgical approach in majority of the patients.Reconstructive surgery should restore the right angle configuration of the rectal neck by appropriate plication of the puborectalis muscle [8]. The important base and intermediate loops of the external anal sphincter (EAS) should be identified and repaired to ensure anatomical control of gas and liquid stool. The two recognised methods of repair of damaged external anal sphincter (EAS): are end-to-end (approximation) repair and overlap repair by absorbable suture material [7].

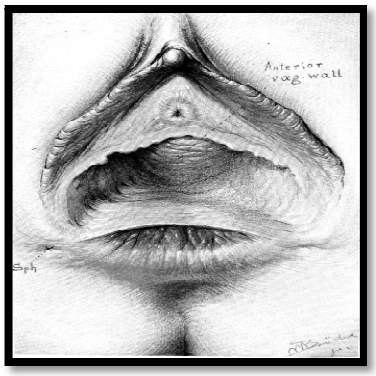

Figure 1. Old III degree perineal tear

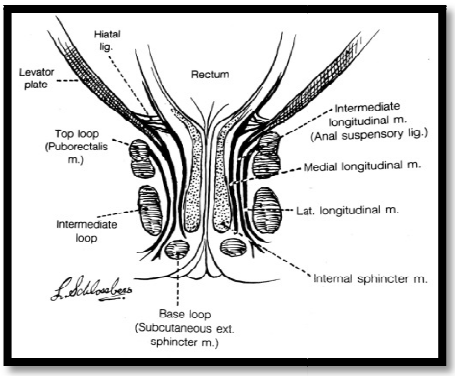

Figure 2.Anal Canal- diagrammatic illustration

The limited data available shows that compared to immediate primary end-to-end repair, early primary overlap repair appears to be associated with lower risks for faecal urgency and anal incontinence symptoms. However it would be inappropriate to recommend one type of repair in favour of another [7]. Anal sphincter repair carried out by appropriately trained staff is associated with low morbidity, irrespective of the suture material and repair method used. A surgeon should use the technique with which he or she is most familiar [7,9].Efforts to identify occult Internal anal sphincter (IAS) injury and repair this separately as well as the EAS may improve patient outcome. Improvement in the functional length of the sphincter corresponded to a successful outcome [3,7]. At the end of 36 months there appears to be no difference in flatus or faecal incontinence between the two techniques [10].

The prognosis following external anal sphincter repair is good with 60–80% asymptomatic at 12 months [1,7] .Women with injuries to the internal anal sphincter or rectal mucosa have a worse prognosis for future continence problems. Preoperative counseling should emphasise that although most patients will improve after the procedure, continence is rarely perfect, many have residual symptoms, and some may develop new evacuation disorders [9].

In conclusion, obstetric anal sphincter damage, and related fecal in continence are not uncommon. Risk factors for such trauma are well recognized, and should allow for reduction of injury by proactive management. Improved classification, recognition, and follow-up of at-risk patients should facilitate improved outcome. Secondary repair is usually offered to patients with gross faecal incontinence, The outcome depends on the

extent of the anal sphincter damage and associated neurological injury [3,7]. In remote, rural, poor resourced areas and poor reporting we will see more and more patients needing secondary repair.

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