Association and Outcome of the Primary Repair of Obstetric Perineal Injuries

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To study the association and outcome of the primary repair obstetric perineal injures.

**Design:** Cross sectional study.

**Methods:** Patients presenting with third and fourth degree tears were included, factors associated with injures were studied. Primary repair was performed and outcome was looked after three months of repair.

**Results:** Sixty Four (64) patients were studied in 18 months 59% were having their first pregnancy. Instrumental deliveries an macrosomia are strong associations. Primary repair with end to end approximation was done which was successful.

**Conclusion:** Prevention is important Mediolateral episiotomy and skill of instrumental deliveries can minimize the risk of obstetrics perineal injures.

**Key Words:** perineal tears, faecal incontinence, instrumental deliveries, mediolateral episiotomy.

**Introduction**

Anal Sphincter injury (Third and forth degree tears) at vaginal delivery is the most common cause of faecal incontinence in otherwise healthy women. Obstetric injures complicate 0.5 -15% of vaginal deliveries. However, prevention of injury would obviate the need for surgical repair and associated short term morbidity.

Patients and obstetrician have the universal desire to limit the incidence of injuries. It is however an unfortunate paradox that most of the risk factors for anal sphincter injuries (primiparity, instrumental deliveries birth weight 7.4 kg) are components of normal labour and delivery process.

The Majority of the women with these risk factors deliver vaginally, and sustain injuries.

Several studies have identified a number of obstetric risk factors associate with sphincter injury. These include, nulliparity, large birth weight more than 4000 gms, forceps delivery, ventous delivery, epidural, induction of labour, delay in second stage of labour and persistent occipito posterior position of the fetus. Episiotomy appeared to be protective against sphincter injury, but evidences indicates that this may not be so.

Recognized obstetric anal sphincter injuries (OASIS) occur in 0.4 – 19% of vaginal delivery in centers practicing mediolateral and midline episiotomies respectively.

Previously there was confusion in classification of anal sphincter injuries. After having an audit on concept of classification, now a new classification was suggested, and this has now been accepted by the RCOG and the international consultation on incontinences (Table 1) OASIS therefore represent third and fourth degree tear.

**Methods**

Cross Sectional study was carried out at women and children hospital of district Dera Ismail Khan, from 1st July 2005 – 31 December 2006. Midline episiotomy is not practiced in this institution and over all 3rd degree perinical tear is proximally 2%.
ASSOCIATION AND OUTCOME OF THE PRIMARY REPAIR OF OBSTETRIC PERINEAL INJURIES

<table>
<thead>
<tr>
<th>Induction of Labour</th>
<th>Yes</th>
<th>18</th>
<th>28%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>46</td>
<td></td>
<td>72%</td>
</tr>
</tbody>
</table>

Table 1: Classifications of Perineal Tear.

<table>
<thead>
<tr>
<th>Intact Perineum</th>
<th>No visible tears</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Degree Tear</td>
<td>Injury to tears</td>
</tr>
<tr>
<td>2nd Degree Tear</td>
<td>Injury to perineal muscle but not anal sphincter</td>
</tr>
<tr>
<td>Third degree Tear</td>
<td>Injury to perineal involving the anal sphincter complex.</td>
</tr>
<tr>
<td>i. 3a- less than 50% ext sphincter torn.</td>
<td></td>
</tr>
<tr>
<td>ii. 3b- More than 50% ext. sphincter torn.</td>
<td></td>
</tr>
<tr>
<td>iii. 3c IAS Torn.</td>
<td></td>
</tr>
<tr>
<td>Forth Degree Tear</td>
<td>Injury to perineal involving the anal sphincter &amp; anal epithelium.</td>
</tr>
</tbody>
</table>

A total of 64 patients were found in 18 months. Majority of the patients (59%) were having their first pregnancy. Among total patients, only 3 patients were having 4 degree tears, and all of them were referred from periphery and were delivered by midwife with history of injections and handling at home. In remaining 61 patients (95%) only 16 patients (25%) were having mediolateral episiotomy. In hospital delivery 15 patients had instrumental deliver in which majority (85%) were having forceps delivery. Most of the babies were having forceps delivery. Most of the babies were having birth weight of 3.5 – 4kg. In total 18 patients (28%) labour was induced with vaginal prostaglandin pessary. The patient with 4th degree perineal tears were giving history of spontaneous onset of labour as they all were mishandled by local midwife.

Discussion

Our data confirmed that nulliparity, induction of labour, instrumental delivery (forceps, ventouse), birth weight > 4 Kg may be contributing factors for anal sphincter injuries. However the protective effect of episiotomy remains unclear. As the attitude of protecting perineal injury differs among obstetrician and midwife. On the other hand, protective interventions are either c/sections or routine episiotomy, but the protective effect of episiotomy is not clearly demonstrated in different studies.

Several authors have demonstrated a protective effect of mediolateral episiotomy, smaller angle of episiotomy likely? To lead to anal sphincter injury. It was unsurprising that majority of hospital deliveries sustaining tears vaginal deliveries. It is a widely held belief that forceps, assisted delivery is more traumatic to the continence mechanism than vacuum extraction?

The range of birth weight was wide, and several women delivered macrosomic babies. This emphasizes that fetal size has a subsidiary influence acting in combination with other intrapartum factors. The most devastating fact is that majority of sphincter injuries and those of 4th degrees, they are delivered by untrained birth attendants either at home or some other place. These people use oxytocin injudiciously and most of then, even, cant perform episiotomies. Injudicious use of oxytocin and bad handling during labours lead to severe trauma and another dark aspect of the fact is that, they are not referred in time for proper repair of the injury. Induction of Labour was also found having association with anal sphincter injury. As majority of the induced labour end up in instrumental deliveries, so it ma also be contributing factor in increasing the risk for erineal trauma.

It is definitely necessary to demonstrate that clinical examination at the time of delivery remains the cornerstone of diagnoses of anal sphincter damage. In each case, careful examination of perineum and vagina is mandatory along with rectal examination to exclude rectal or anal sphincter injury.

Visual inspection combined with palpation by performing a pill rolling motion between index finger in the rectum and the thumb over the anal sphincter, improves the detection rate of OASIS. This can more be sophisticated by supplementing endoanal ultrasound performed immediately postpartum, prior to suturing and then repeating several weeks later. This can help in detecting occult injuries because occult injuries also have risk of feecal incontinence after a subsequent vaginal delivery. Fecal incontinence, feecal urgency, dyspareunia and perineal pain have been reported in 30-50% of women, who sustain such tears and symptoms may persist for several year after primary repair.

Traditionally, anal sphincter tears have been repaired at the time of injury by using the technique of end to end approximation of the torn anal sphincter. Recently a retrospective cohort study by sultanetall suggested better outcomes using the overlap with end to end approximation found no signification difference in outcome.

Conclusion

The most important aspect of the anal sphincter injury is prevention. Thought most of the risks for injury are the components of birth process but skill and experience of the obstetricians while using instruments for delivery and mediolateral episiotomy can minimize the extent of injury. Not only 3rd and 4th degree tear, large number of occult injuries are missed at delivery. Therefore it is important that doctors and midwife must under go more focused intensive trainings to recognize these tears at delivery, along with this proper training in repair of sphincter injury is also mandatory.
Reference