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RESEARCH ARTICLE

THIRD AND COMPLETE PERINEAL TEAR RISK FACTORS AND OUT COME AFTER TREATMENT

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ABSTRACT

Aims & Objective: To identify the risk factors for third and complete perinear tears,treatement and follwup of patients and recommendations for Prevention of perineal tears.

Material & Methods: Study was conducted in Santhiram medical college from may 2014 to nov 2015 25cases of vaginal delivery with third & complete perineal tears were selected 21 cases were refer to our institution delivered somewere else and 4 cases were from our institute which our third degree perineal tears occurred due to instrumental delivery. All the cases were examined and differentiated into two groups. group 1 with third degree perineal tear and group 2 complete perineal tear.cases which are referrd with in six hours of delivery received Intravenus antibiotics and suturing was done immidiatly by layer techniq with end to end anastomosis.post operatively antibiotics were continued patients were discharged on 6 postoperative day. Patients presented late after 24 hours were advised to wait for 3 months post partum and later taken up for repair.All the patients are followed 2 weeks & 8 weeks after repair.

Results: In our study common risk factor for perineal trauma was instrumental delivery ,big baby anemia and pro longed labour in addition primiparity is also arisk factor.Others risk factors being face to pubis delivery ,breech presentation and shoulder dystocia.There was no influence of age ,epidural anesthesia and medio lateral episiotomy in our study

Conclusion: Identifying the risk factors ,preconceptional care,regural antenatal check ups identification and treatment of risk factors in antenatal period ,proper intrapartum care should be given to prevent occurrence of perineal trauma. Public education in mass media should be encouraged.

INTRODUCTION

The incidence of perineal tears is common in women specially in their first child birth since the perineum is quite firm and cannot stretch adequately. (Swash, 1993; Sultan, 1997) While an episiotomy can prevent major perineal tears to some extent,tears can still occur even after or with an episiotomy. As our college is situated in rural area we get many number of cases of complete perineal tear and third degree pereneal tear in which most of the cases are being conducted in periphery by un trained dais.These cases are reffered to our hospital,mostly un sutured and few sutured by local doctors for followup of cases. Severe perineal trauma is associated with short term complications like traumatic post partum haemmorrhage and shock, perineal pain, hemotoma, faecal in continence ,delayed complications like perineal abscess, utero vaginal prolapse, urinary incontinence (stress and urinary fistula) faecal in continence, dyspaurenia, feeling of slack vagina during coitus and increased rate of caesearean sections in future pregnancies. (3-6) Some of the causes of over stretching of perineum leading to perineal tear are big baby, contracted pelvis, instrumental deliveries, malpresentations like breech and malpositions like direct occipitoposterior position, face presentation shoulder dystocia and inelastic perineum due to the presence of scar.Our aim of present study is to assess the risk factors, out come of treatment and steps to prevent the perineal tears.

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MATERIALS AND METHODS

The study was conducted for one and half year from may 2014 to November 2015 in Santhiram medical college situated in rural area of nandyal town.Total number of deliveries during that period was 4250 .Out of which there were 4 cases of third degree perineal tear from our institution and 5 cases third degree perineal tear were reffered from out side.All 16 cases of complete perineal tear were reffered to our hospital after delivering some where else.After taking thorough history and physical examination third and complete perineal tears were diagnosed.Cases of various ages and parity were included. Most of the cases were uneducated and belonging to low socioeconomic status.Most of the deliveries were conducted by unqualified doctors or untrained dai whith out proper support to perineum or some times un attended deliveries.Most of the patients with complete perineal tear had anemia, malnutrition and history of prolonged labour.Some patients had instrumental delivery, few patients had multiple risk factors. Some patients also had traumatic post partum hammorauge. Based on degree of perineal tear patients were differentiated in to two groups.Group1 with third degree perineal tear and group 2 complete perineal tear.In group 1 four patients delivered in our institutions had third degree perineal tear, in these cases 3 patients had vacuum application and 1 patient had forceps delivery .Usually patients in our institutions receive low enema before delivery.So these patients receive nobowel preparation. Giving intravenous anti biotics patients are shifted to operation theatre and suturing done immediately.

The remaining five patients delivered out side and were reffered to our hospital with in six hours who receive the same treatement. Patients in group 2 were reffered to our hospital after 24 hours but less than five days.In four cases suturing was done,in local private hospital but there was perineal pain with swelling and discharge with infection.The sutures also given way.These patients were advised to wait for three months postpartum and later taken up for repair.

The patients were admitted four days prior to surgery.Patients were kept on antibiotics to cover gram positive,gram negative and anaerobic bacteria.Pre operatively patients were advised liquid diet,bowel preparation was done , everyday for three days . Surgery was done by layer technique with end to end anastomosis. 2-0 chromic catgat is used in ten patients and vicryl 2-0 is used in six patients.Postoperatively antibiotics continued and nill by mouth for one day, oral fluids started after 24 hours. And non residul diet started on second day. Laxatives are prescribed for two weeks; patients are discharged on sixth postoperative day. Patients are reviewed on second week and eighth week; patients were also explained regarding performing perineal exercises.

RESULTS

Most of the patients in our study were in the age group of 20 to 25 years. Incidence of perineal trauma is also high in primiparity group. Out of 25 cases perineal trauma 21 cases were referred from out side and 4 cases were from our institutions which were due to instrumenatal deliveries. There are many risk factors associated with perineal trauma. Few patients had multiple risk factors.Most of the patients in our study sustained perineal trauma with babies birth weight 2.5to 3.0 kgs in 14 cases.10 cases had birth weight between 3 to 3.5 kgs and only one case with birth weight more than 3.5 kgs.

All the patients had episoiotomy except 2 cases in which episiotomy was not given. All the patients were followed .Three patients are lost in follow up. After 8 weeks patients were examined for tone of perineal muscles.16 patients performed perineal exercises and had good tone and 9 patients did not perform exercises well and were advised follow up. Patient with complete perineal tear were advised elective caserean section in next pregnancy.Patients with third degree perineal tear are advised to have regular followup and planned delivery in an institute or with qualified doctors to prevent recurrence.In our study there were 2 cases of failure with gaping of wound and one patient had low rectovaginal fistula. There were no maternal deaths in our study.

No of cases	Degrees of perineal tear
9	Third degree
16	Fourth degree
25	Total

Age wise distribution of perineal tear

Parity	No of cases
<18	0
18-20	5
20-25	11
25-30	7
>30`	2
Total	25

Influence of parity

Primiparity	17
Multi patity	8
Total	25

Place of occurance

Reffered from out side	21
Institutional	4
Total	25

Risk factors

Shoulder dystocia	1
Anemia	9
Instrumental delivery	11
mal position	2
Mal presentation(breech)	1
Big baby	11
Prolonged labour	8

Note: Few patients had multiple risk factors

DISCUSSION

Incidence of third degree perineal tear is 0.6% in sultan *et al* (Sultan *et al*., 1994) and by walsh *et al* (Walsh *et al*.,1994) In our study the incidence is 0.09%. It is common that nulli parous women are at higher risk of anal sphincter tear than multiparus women (Sultan *et al*., 1994; Bek and Laurberg, 1992) In our study primiparas women also had increased incidences perineal trauma, relative in elasticity of perineum in nullipara which is reduced after 1 or more delivery might be responsible for these tears in nulliparous women (Thacker and Banta, 1983; Combs *et al*., 1990) In multiparous women high birth weight may not be a risk factor. Green and soohoo (Green and SL, 1989) found a positive association between third degree perineal tear and birth weight over 4 kg .other studies of Bek *et al*. 1992. ® and sultan *et al* (Sultan *et al*., 1994) do support this .In our study it was common in birth weight 3 to 3.5 kg.

Use of forceps and vaccume the risk of anal sphincter tear increases similar to findings of other authors (Bek and Laurberg, 1992; Combs *et al*., 1990). There were 3 cases of vacuum extraction and 1 case of forceps associated with third degree perineal in our institution.Different studies comparing perineal trauma between forceps and vacuum extraction have shown vacuum extraction to be less traumatic (Broekhuizen *et al*., 1987; Baerthlein *et al*., 1986; Meyer *et al*., 1987). In addition sultan *et al* (Sultan *et al*., 1994) have revealed with endosonography sphincter defects in 80% of forceps delivery compared with none with vacuum deliveries. Induced labour is significantly associated with anal sphincter tear. Haadum *et al*. (1988) have found the same results.In our study 6 cases were induced labour.

Combs *et al*. (1990) suggest that relaxation of perineal musculature due to use of epidural anaesthesia prevent women from having an anal sphincter tear during instrumental delivery .This finding is in contrast with the results of other authors (Sultan *et al*., 1994; Meyer *et al*., 1987; Walker *et al*., 1991) who found no relation between perineal trauma and epidural anesthesia.

There was only one case of vacuum extraction with epidural anesthesia in our study. There is strong association between midline episiotomy and anal sphincter tear (Sultan *et al*., 1993; Sultan *et al*., 1994; Poen *et al*., 1997; Bek and Laurberg, 1992) Klein *et al*. (1994) reported an odds ratio of 22.08 .There fore in our country also midline episitomy replaced by mediolateral episitomy.Most authors (Sultan *et al*., 1994; Bek and Laurberg, 1992; Thacker and Banta , 1983; Henriksen *et al*., 1992; Argentine Episiotomy Collaborative Group, 1993) have recommended a conservative approach to wards the use of this type episiotomy in preventing anal sphincter tear.In a randomized control trail of Argentine episiotomy trail collaborative group (Argentine Episiotomy Collaborative Group, 1993) concluded that routine medio lateral episiotomy should be abonded and that mediolateral episiotomy rates above 30 % cannot be justified in their study. There were 2 cases of perineal trauma with out episiotomy, in remaining all cases episiotomy was given. The West Berkshire perineal management trail (Sleep *et al*., 1984) provided little support for liberal use of medio lateral episiotomy. Beketal (Bek and Laurberg, 1992) found an increased risk of anal sphincter tear when medio lateral episiotomy is given. Borgatta *et al*. (1989) found a decreased risk of anal sphincter tear when mediolateral episiotomy was used in nulliparous women.

Risk factors presently found to be associatiated with sphincter tear confirm high birth weight (Sultan *et al*., 1994 ; Poen *et al*., 1997) episiotomy (Bek and Laurberg, 1992; Buekens *et al*., 1985; Rockner *et al*., 1989) vacuum extraction (Bek and Laurberg, 1992; Combs *et al*.,1990; Johanson *et al*., 1993) epidural anesthesia (Green and SL, 1989) the duration of second stage of labour was previously been reported to be unrelated to sphincter tear (Green and SL, 1989; Combs *et al*., 1990). How ever Beketal and Laurberg (Bek and Laurberg, 1992) there was an association with an adjusted odds ratio of 4.06 which was adjusted to 1.6 in the multiple logistic regression analyis.

Conclusion

Perineal tears are common in vaginal delivery. Proper pre conceptional care, importance of regular antenatal check ups, identicication and treatment of risk factors in antenatal period, proper intrapartum care by traditional birth attendents, birth position, good support of perineum are important for prevention of perineal trauma.In addition public education and awareness is also important. After repair of tear, regular follow up of patients and planned delivery in next pregnancy is essential to prevent recurrence.

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