Original Article

Factors Leading to Perineal Tear During Vaginal Delivery

Perineal Tear During Vaginal Delivery

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ABSTRACT

Objective: To determine factors leading to perineal during vaginal delivery presenting sandeman provincial Quetta
Study Design: Cross Sectional Study
Place and Duration of Study: This study was conducted at the Department of Obstetrics and Gynecology Sandeman Provincial Hospital/BMC, Quetta for six months.10thJanuary 2019to 10thJune2019.
Materials and Methods: A Total number 95papatients were selected for study. All participants were given information about and an informed consent was taken from the participants. On arrival of the patient in the labour room, a detailed history menstrual periods, co-morbid like Diabetes Melitis hipper tension was under taken. Labour was managed according standard protocol Instrumental delivered and episiotomies where performed where needed. Once the third stage of will be over, vulva, vagina and cervix were examined for any tears and managed accordingly. Presence of perineal to degree was noted. Patients were managed conservatively or surgically.
Results: Ninety five patients fulfilling the inclusion criteria were included in this study. The means ± standard deviation age of study population was 23.56±6.622years Mean gestational age was 36.67±2.271 weeks. On analysis of demographics data, it was observed 57(60%) were below 30 years of age &38(40%) were age 30years and above.86(71.58%) were none multifarious and 27(28.42%) were multifarious.45(47.37%) patients were of gestational age less than 36weeks. 56 (58.95&) had degree of tear less than 3.56(58.9%) were managed conservatively. 68(71.6%) were primigravida 20(21.1%) had high birth weight baby, 30(31.6%)spontaneous vaginal delivery, 47(49.5%)had forceps delivery, 40.(42.1%) had increased gestational age.
Conclusion: Primigravida, Forceps delivery and increased gestational age common factors predisposing perianal tear.

Key Words: perianal tear, Forceps, Gestation Age, High birth weight.

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INTRODUCTION

Any damage to the perineum during child birth is defined as perineal injury; it occurs after episiotomy or it may happen automatically. Perineal injury is a serious complication of vaginal delivery that has a severe impact on the quality of life of healthy women[1]. More than 85% of females who undergo a vaginal birth will suffer from some degree of perineal tear, [2]with0.6–11% of all vaginal deliveries resulting in a third-degree orfourth-degreetear[3-4] Fortunately, the incidence of perineal Tears decreases with subsequent births, from 90.4% in women who are nulliparous to 68.8% in women who are multiparous undergoing vaginal deliveries[5]. Since 1980, proportion of child birth episiotomy has fallen while perineal tear has risen.[6]

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Occurrence of obstetric perineal tears is very common in certain areas as depicted by the high frequency of 9.8% in one study.[7]

Perineal injuries and anal sphincter ruptures are serious complications of vaginal delivery. Most common consequences of perineal injury are pain and in continence, which affect the quality of life of healthy women. Other consequences identified are negative emotional and psychological effects on women's over all well-being. This trend towards an increasing incidence of third or fourth degree perineal tears does not necessarily indicate poor-quality care. Tearing is complex issue which could be influenced by arrange of factors including: advanced maternal age at first birth, large. Maternal BMI and birth weight of the baby, instrumental delivery and better detection and reporting. However, these risk factors do not always allow the accurate prediction of severe tearing. There is therefore a need for early recognition of anal sphincter damage among clinicians as well as appropriate training in repair methods as a poor technique or poor selection of materials may cause a repair to be unsuccessful. Currently, there is a need for further research regarding the optimal mode of delivery following third-or-fourth-degree perineal tears in a subsequent pregnancy. Clear documentation, including drawings, together with providing women with a clear explanation of the possible delivery options and associated risks are

therefore extremely important[8]. Risk factors for anal sphincter rupture during delivery are described as null parity, high birth weight of the child, instrumental deliveries, episiotomy, adverse birth position, maternal age and epidural analgesia .Women who deliver in a semi-sitting position or who squat during the pushing phase are at greater risk of sustaining perineal -injuries. It is further reported that prolonged labor significantly increase the risk for perineal injuries Avoidance of episiotomy has been identified as a protective factor in a voiding perineal injuries among first-time mothers. Forceps delivery cause anal sphincter ruptures more often than vacuum extraction and spontaneous delivery[9]. Instrumental deliveries and Cesarean section has become more prevalent over the past decade, and the prevalence of anal sphincter rupture in second and third births has consequently increased Lower frequency of perineal injuries and anal sphincter ruptures.Aa-sheimetal[10]believed that perineal massage reduces 3rd and 4th degree tears rather than non-contact technique. Granmayh etal. Observed that perineum massage with Vaseline in these second stages of labor had more intact perineum, episiotomy as well as more 1stand 2nd grade tear in intervention group than control group[11]. One study has shown that about 89.47% patients were less than 30 years of age. Among them 71.91% were primigravida. Birth weight above 3.5kg was associated with perineal tear in 28.7% patients.19.3% patients had spontaneous vaginal delivery while 30% of patients with perineal tear had Forceps delivery.31.6% patients of above 40 weeks' gestation developed perineal tear[12]**.**

MATERIALS AND METHODS

This cross sectional study was conducted at Department of Obstetrics and Gynecology sandeman provincial hospital/BMC, Quetta over duration of six months.10th January 2019 to 10th June 2019. Non-probability consecutive sampling technique was used. As per following criteria the sample was selected with inclusion criteria, all pregnant patient undergoing labour, perineal tear as per operational definition, patient of age> 14and<45 years, single pregnancy; as determined by ultrasound abdomen, parity1-2 and those consenting to participate in the study.

Antepartum hemorrhage due to placenta Previa and abruption diagnosed on U/S pelvis, women with prior perineal or pelvic surgeries as fistula repairs as per their previous record, cases with obstetrics risk factors indication C-section diagnosed clinically or on previous available record were excluded from the study.

Data was analysed using software of Statistical package of Social Sciences (SPSSversion19). Mean ±SD was calculated for continuous variable of age and gestational age. Results on categorical variables of parity, degree of tear and patient outcome variable factors of perianal (Maternal age, high birth weight of baby, spontaneous vaginal delivery, forceps delivery, increased gestational age) were expressed in frequencies and proportions. Effect modifier were controlled through stratification of age, parity and gestational age to see effect of these on outcome variable applying chi square test taken p value≤0.05 significant**.**

RESULTS

Ninety-five patients fulfilling the inclusion criteria were included in this study. The mean± standard deviation age of study population was 23. 56± 6.622 years. Mean gestational age was 36.67±2.271 weeks. On analysis of demographics data ,it was observed 57 (60%) were below 30 years of age & 38(40%) were of age 30 years and above.86 (71.58%) were primigravida and 27 (28.42%) were multiparous. 45 (47.37%) patients were of gestational age less than 36 weeks 56(58.95&) had degree of tear less than 3.56(58.9%) were managed conservatively 68(71.6%) were primigravida. 20(21.1%) had high birth weight baby,30(31.6%) spontaneous vaginal delivery,47(49.5%) had forceps delivery, 40(42.1%) had increased gestational age**.**

DISCUSSION

Prim parity and being of Asian ethnicity are non-modifiable risk factors associated with an increased risk of severe perineal tear.9 Modifiable risk factors associated with an increased risk include epidural anesthesia, labour induction, labour augmentation and persistent occipitoposterior presentation (which may be altered during second stage using manual rotation).

Other potentially modifiable risk factors associated with an increased likelihood of severe perineal tears include an episiotomy and operative vaginal deliveries (both vacuum and forceps)[13.] An infant with a higher birth weight is also a risk factor but more difficult to potentially modify. Use of selective (rather than routine) episiotomy can reduce the incidence of severe perineal trauma (in women where an unassisted vaginal birth is anticipated)[14].

One study investigated third and fourth degree tears in an Italian population and found moderate/severe obesity was associated with such injuries[15].

Episiotomy uses at vacuum deliveries have been associated with a reduction in risk of third and fourth degree tears in observational studies[16].

Intrapartum perineal massage is more likely to result in an intact perineum and reduce the incidence of third- and fourth-degree tears[17].

Hands off' technique during the second stage of labour may reduce the incidence of episiotomy[18].

Efforts should be made to develop a national clinical care standard that addresses prevention and management of perineal tears in collaboration with women, professional colleges and organizations and health services. Information for women should be readily available to enable them to make clear decisions about clinical practices. Consumer information produced by the RCOG is one example that might be useful to adapt. Education training of midwives and doctors in perineal anatomy and classification of

perineal tears needs to occur using a nationally available, standardized package or program, preferably online. This would address correct classification and diagnosis of the perineal type ('degree') and hence guide appropriate management and care by skilled staff. Continuity of care from midwives and doctors needs to be enabled so that women feel safe and supported when undergoing repair and postpartum management after severe perineal trauma[19]. Perineal tear is a significant morbidity associated with child birth. These tears are associated with short term, intermediate and long term complications. These include perineal discomfort, pain and edema. Later on flatus, fecal urgency or in continence may develop[20-21].The psychological aspect of such injuries and their complications cannot be ignored**.**

CONCLUSION

Primigravida, Forceps delivery and increased gestational age are common factors predisposing perineal tear. Forceps delivery was more common in primigravida Primi gravid a had more first and second degree tears

Author's Contribution:

Concept & Design of Study:	Zubia Bugti
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