

Facilitating factors and prevalence of obstetrical tears

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Abstract- Obstetric tears are complications of childbirth which include tears of the cervix, vagina, vulva and perineum. In 2015 in Mali, a rate of 81% of tearing of the perineum was found in parturients at the maternity ward of the reference health center of commune 5 of the district. In Cameroon, nearly 4,000 women die each year on the delivery tables, with a rate of tears that varies from 8 to 13.5%. The general objective of this study is to determine the factors favoring obstetric tears at the Dschang Annex Regional Hospital, to achieve this, we conducted an analytical study which took place from May 8 to June 2, 2023 at Dschang Annex Regional Hospital, with a questionnaire from 62 respondents entered according to the probability method by simple random sampling. The results obtained at the end of our survey indicate that of all our respondents, 12 come out of deliveries with a 1st degree tear, 5 with a 2nd degree tear, 4 with a 3rd degree tear and one with a 4th degree tear. degree. The main risk factors are: age, parity, history of perineal tears, excess fundal height, quality of perineal tissue (scarred perineum), macrosomia and duration of expulsive effort.

Keywords: factors, promoters; obstetric tear.

INTRODUCTION

Maternal mortality is very high, which is unacceptable. About 830 women die every day worldwide from complications related to pregnancy or childbirth ^[1]. According to Revue Space Territories Companies et Santé ^[2], 57% of all maternal deaths occur on the African continent, which makes it the region of the world where the maternal mortality ratio is the highest. Almost all maternal deaths (99%) occur in developing countries, more than half of them in sub-Saharan Africa, i.e., 49.5%, and almost a third in South Asia. During childbirth, the forces acting on the pelvic floor can lead to major trauma to the perineum ^[3]. Thus, vaginal delivery can be accompanied by perineal tears with varying degrees of severity and complications ^[4]. Approximately 85% of women who give birth vaginally will experience perineal trauma ^[5]. Obstetric tears occur in 20-60% of vaginal deliveries and are considered severe in 2-8% of cases worldwide ^[6]. In Cameroon, nearly 4,000 women die each year on delivery tables ^[7], with a tearing rate that varies from 8 to 13.5% ^[8]. Irrespective of the region of the world or the hospital considered, perineal tears remain one of the most frequent obstetric traumas. This makes this problem a problem of general interest because if nothing is done in time there will be an increase in the maternal morbidity mortality rate. The integrity of the genital tract is not always respected during childbirth. Obstetric lacerations are lesions resulting from a break in continuity occurring during childbirth and affecting the perineum, vulva, vagina and/or cervix. These lesions are often associated ^[9]. The repeated efforts of the thrusts, the muscle tissues end up yielding, sometimes helped by the use of an extraction instrument (forceps) and we witness the perineal tear. This injury can reach various degrees of severity, ranging from a superficial tear to a complete tear affecting the anus ^[10]. The constant pressure of the baby's head on the mother's pelvic bone damages the soft tissues, creating a hole or fistula between the vagina and the bladder and/or rectum. This pressure stops the flow of blood into the tissue which is dying. Ultimately, removal of the necrotic tissue leaves a fistula that causes constant leakage of urine and/or faeces from the vagina. Thus, unable to stay dry, the woman is often abandoned by her husband and her family and kept away from her community and if she does not receive treatment, her chances of working and having a family life are very limited ^[11]. Obstetrical anal sphincter injury (OASIS) can have far-reaching effects on women by impairing their quality of life both in the short and long term. Additionally, complications of severe perineal tears include abscess formation, wound rupture, anal incontinence, and development of fistulas. Although the true prevalence of anal incontinence (AI) associated with OASIS may be underestimated, reported rates of IA have been reported to range from 15% to 61%, averaging 39% ^[12]. In Togo, a study conducted over a period of one year at the Sylvanus Olympio University Hospital in Lomé shows that the frequency of forceps is 1.12%, for 63% of episiotomy with vaginal and perineal tears as maternal complications found ^[13]. In Cameroon, according to a study conducted at the Central Hospital of Yaoundé, the frequency of spontaneous perineal tears is 12.87% with 96% of 1st degree tears, 3% of 2nd degree and 1% of 3rd degree ^[14]. The Dschang Annex Regional Hospital is a reference hospital which houses a follow-up service for pregnant women and is very busy, but no similar study to our knowledge has been carried out so far in order to assess the frequency obstetric tears and associated factors.

METHODOLOGY

Our choice was taken to the Dschang Annex Regional Hospital delivery room. This is an analytical study, our study took place from January 2023 to July 2023, i.e., over a period of 6 months. Data collection for our study took place from May 8 to June 2, 2023. The target population was all pregnant women, the source population was all parturients who attend the Dschang Annex Regional Hospital. The inclusion criteria in our study were all parturients who attended the maternity ward of the Dschang Annex Regional Hospital and who agreed to participate in the study. The non-inclusion criteria were all women who did not meet the inclusion criteria. The data collected was analyzed using IBM SPSS statistics 26 software. The results were presented in tables.

RESULTS

We recorded during the present study 62 participants. Table I represents the distribution of participants according to their socio-demographic factors. It appears that the majority of the women who participated in the study, i.e., 38.7%, were between 25 and 29

years old. 59.7% of our respondents were married, 48.4% had a higher education level, 37.1% had a student profession and 48.4% were of the Catholic religion.

Table I: Distribution of participants according to socio-demographic factors.

Characteristics	Frequency	Percent
Age		
13 - 19 years old	05	8,1
20 - 24 years old	18	29
25 - 29 years old	24	38,7
30 - 34 years old	08	12,9
35 years and over	07	11,6
Total	62	100
Marital Status		
Married	37	59,7
Single	25	40,3
Total	62	100,0
Level of Education		
Unschooler	3	4,8
Primary	2	3,2
Secondary	27	43,5
Superior	30	48,4
Total	62	100,0
Occupation		
Pupil	2	3,2
Official	8	12,9
Household	12	19,4
Student	23	37,1
Other	17	27,4
Total	62	100,0
Religion		
Protestant	20	32,3
Catholic	30	48,4
Muslim	4	6,5
Other	8	12,9
Total	62	100,0

Source: Author

Analysis of the Table shows that out of 100% of our respondents, up to 30.6% are unaware. She considers obstetric tears as uterine rupture. The Table shows us that out of 62 respondents, up to 36 of them do not know the risk factors for obstetric lacerations. 26 of them consider uterine contractions, 7 are for high blood pressure and 3 consider diabetes as a risk factor. The table shows that the vast majority (41 or 66.1%) assume that drinking hot herbal teas during pregnancy and childbirth prevents obstetric tears. The table shows that 18 out of 62 respondents consider infertility to be a complication/consequence of obstetric lacerations. The table shows that 9 respondents have a poor level of knowledge regarding obstetric lacerations and 18 have a low level of knowledge. The majority of study participants (54.8%) had a higher level of education, but despite this, we recorded up to 14.5% of respondents with a poor level of knowledge and up to 29% with a low level of knowledge relating to obstetric lacerations, which is deplorable.

Table II: Distribution of participants according to definition, risk factors, knowledge of prevention, consequences/complications and knowledge of obstetric lacerations.

Characteristics	Frequency	Percent
Definition of an obstetric tear		
A complication of childbirth that includes tears of the cervix, vagina and vulva	43	69,4
A ruptured uterus	19	30,6
Total	62	100,0
Risk factors for obstetric lacerations		
Primiparity	11	11,7
Uterine contractions	26	41,9
High blood pressure	7	11,3
The weight of the baby greater than or equal to 4kg	15	24,2
Diabetes	3	4,8
Total	62	100,0

Knowledge on the prevention of obstetric lacerations		
Perineal application of warm compresses during labor	11	17,7
Drinking hot herbal teas during pregnancy and childbirth	41	66,1
Perineal massage during pregnancy	2	3,2
Eaten less salt	8	12,9
Total	62	100,0
Knowledge of the consequences/complications of obstetric lacerations		
Postpartum haemorrhage	28	45,2
The infertility	18	29
Anal incontinence (long term)	2	3,2
The death of the baby	8	12,9
Pain during sex	6	9,7
Total	62	100,0
Knowledge about obstetric lacerations		
Poor	9	14,5
Weak	18	29
Average	14	22,6
Good	12	19,4
Very good	9	14,5
Total	62	100,0

Source: Author

It appears from Table III that out of all of our respondents, up to 05 participants had not performed ANC, 18 were primiparous, 9 had a history of macrosomia 18 had a history of perineal tears and 10 those of episiotomy. Table XI shows that 8 deliveries were dystocic, 54 were performed with an OP release, the expulsive effort was less than 30 min for 33 and an episiotomy was performed for 11. A fetal weight greater than or equal to 4000g for 5, and a head circumference of 38 for one of them.

Table III: Distribution of participants according to their medical history, course of childbirth, fetal presentation, weight of the foetus, and cranial circumference.

Source: Author

		Perineal tears					Total
		No	1st degree	2nd degree	3rd degree	4th degree	
How many pregnancies have you carried to term?	Primiparous	9	5	2	2	0	18
	Pauciparous	17	3	2	0	1	23
	Multipara	6	3	1	1	0	11
	Grand multiparous	8	1	0	1	0	10
Total		40	12	5	4	1	62

Characteristics	Frequency	Percent
respondents according to their medical history		
Antenatal Care		
Yes	57	91,9
No	5	8,1
Total	62	100,0
Parity		
Primiparous	18	29
Pauciparous	23	37,1
Multipara	11	17,7
Grand multiparous	10	16,1
Total	62	100,0
Macrosomia		
Yes	09	14,5
No	53	85,5
Total	62	100,0
Episiotomy		
Yes	10	16,1
No	52	83,9
Total	62	100,0
Mode of delivery		
Eutocia	54	87,1
Dystocia	8	12,9
Total	62	100,0
Fetal presentation at delivery		
PO	54	87,1
BONE	4	6,5
Seat	4	6,5
Total	62	100,0
Fetal Weight		
Less than 2500g	01	1,6
2500g - 2900g	22	35,5
3000g - 3900g	34	54,8
Greater than or equal to 4000g	5	8,1
Total	62	100,0
Head circumference		
33cm	2	3,2
34cm	3	4,8
35cm	27	43,5
36cm	22	35,5
37cm	7	11,3
38cm	1	1,6
Total	62	100,0

Table IV: Distribution of respondents according to fetal head circumference and consequences/complications of perineal tears.

Its shows that the majority of respondents in this study were pauciparous with 37.1% and had 6 cases of perineal tears.

Source: Author

DISCUSSION

The 25-29 age group represents 38.7% of the cases of complications. This result is close to that of Traoré (2008) ^[16] who reported 72.0% for whom the age group was 18-39 years. The frequency of tears in this age group is explained by the fact that this period of life corresponds to that of genital activity and therefore parturition. These traumatic lesions have many consequences including prolapse and dyspareunia, all of which would compromise the quality of life of these young women. Married women constituted 59.7% of the cases in the present study. This result is close to that of Sowadogo (2011) ^[17], which reports 59.4% of married women, but far from that of Traoré (2008) ^[15] which reports 90% of women living in union. The early entry into union of women in Burkina Faso could explain this finding that half of women enter into union at the age of 17. The majority of our respondents 37.1% were students. Higher than the rate found by sawadogo which was 13.8% of students. The result of the present study would be due to the

fact that we are in a university town. Despite the fact that the majority of respondents followed the ANC, 8.1% of them had not done ANC Sawadogo (2011) ^[17] which reports a total of 27.4% of patients who had not done ANC, rates higher than ours. This could be explained by the lack or insufficiency of information and awareness of women on the importance of monitoring any pregnancy and by the lack of accessibility to health facilities. This is an opportunity to insist with service providers to that preparation for childbirth is systematic during ANC. During this study, we recorded 22 cases of tearing of the soft parts out of a total of 62 vaginal deliveries, i.e., a rate of 35.5% higher than that of Traoré in Mali which reports 1.15% and that of Nguembi et al. in 2004 ^[18] which yielded 5.6%. This result is similar to that of sowadogo (2011) ^[16] which found 93.6%, and higher than that of Fonseca (2023) which found 58.9%. The majority of respondents in this study were pauciparous with 37.1%, close to the result obtained by Nguembi et al. (2004) ^[19], for a majority of poor women with 91.7%. Traoré (2008) ^[16] who found primiparae at a rate of 45.3%. The explanation lies in the fact that during the first childbirth there is often a perineal obstacle, the head being retained by tissues that are too resistant. The perineum of primiparous women is more difficult to distend than that of multiparous women. The under-attendance of health centers by primiparous and pauciparous women as well as the lack of tonicity of the perineal tissue could explain the fact that they are more exposed. In the case-control study carried out in 2011 by Barbier et Al, on 130 primiparous patients, including 63 cases presenting a tear of the anal sphincter and 67 controls with intact perineum, the aim was to determine if primiparity was the only risk factor. anal sphincter injury during childbirth. The study concluded that primiparity is not an isolated factor but is associated with other risk factors: instrumental extraction (44 VS 1%, $p < 0.001$), variety of posterior presentation (32 VS 4%, $p < 0.001$) and mediolateral episiotomy when associated with instrumental extraction (43 VS 1%, $p < 0.0001$). These risk factors are often associated with anal sphincter damage. In our study, the primiparity is found for 29% of the patients lower than the results of Traoré in Mali which was 45.3%. A bivariate analysis to confirm the hypothesis that parity is a risk factor for the occurrence of obstetric tearing ($P=0.651$). Our analysis showed that 54.8% of newborns weighed between 3000g and 3900g. This result is practically similar to that of Traore (2008) ^[16] who reported 77.3% of newborns weighing between 2500g-3999g, for him, it is the small weights that cause more injuries.

The present analysis showed that 54.8% of newborns had a weight between 3000g and 3900g, and 8.1% had a weight greater than or equal to 4000g. We therefore have the same approaches as Tourris H., Henrion R., Delecour M. (2009) ^[19] who find that it is the excessive fetal volume, especially the shoulder, that is preponderant. Batallan et al. ^[20] published a case-control study on fetal macrosomia in 2002. His study was carried out in the 15 maternities of Ile de France and involved 384 newborns macrosomes and 383 control neonates. It found six times more complete perineum in mothers of macrosoma fetuses compared to mothers of eutrophic fetuses (0.3 VS 1.7%; $p = 0.05$). A greater use of obstetrical manoeuvres in case of shoulder dystocia is observed in the macrosome group, which could also place obstetrical manoeuvres in a risk factor for sphincter lesion. In our study, 8.1% of newborns were macrosomes: no recourse to instrumental extraction and maneuvers to reduce shoulder dystocia was observed. Our results seem comparable to those of the study by Batallan et al. thus, we can define in our study that macrosomia is an associated factor in the occurrence of severe tears.

LIMITATIONS

An important limitation of the study was lack of a sufficient recording system.

CONCLUSION

This study was carried out with the aim of determining the factors favoring obstetric tears at the Dschang Annex Regional Hospital. The majority of respondents belonged to the age group of 25 to 29 years with a higher educational level. Despite the fact that on the whole they have an acceptable level of knowledge, many still have a poor level of knowledge relating to obstetric lacerations. Several still had not done antenatal consultation with the majority of poor respondents. Many respondents had a history of perineal tears and/or macrosomia. The prevalence of obstetric tears was therefore 35.5% for 62 low voice deliveries, with parity, history of perineal tears, excess uterine height, quality of perineal tissue, fetal weight and pregnancy as risk factors. duration of the expulsive effort.

FUNDING AGENCIES

The study was not supported financially by any institutions or organizations.

CONTRIBUTION OF AUTHORS

My contributed to conception and design of the study, analyzed data, manuscript preparation, editing. MADZO MBE Elva Michelle contributed to conception and design of the study, data collection, analyzed data, manuscript preparation. Both authors read and approved the final manuscript.

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