ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 9, Issue, 7(B), pp. 27789-27792, July, 2018

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

EPIDEMIO-CLINICAL PROFILE OF DEATH IN UTERO IN BUNIA IN THE DEMOCRATIC REPUBLIC OF CONGO

Taji Leki S[1]., Likilo Osundja[3]., Kyembwa Mulyumba M[2]., Mwetaminwa Sangani[3]., Matega Habiragi[3]., Mumbere Matumo[4]., Komanda Likweke E[3] and Katenga Bosunga[3]

[1]Department of Gynecology-Obstetrics, Faculty of Medicine, University of Bunia
[2]Department of Gynecology-Obstetrics, Faculty of Medicine, University of Goma
[3]Department of Gynecology-Obstetrics, Faculty of Medicine and Pharmacy, University Kisangani
[4]Department of Gynecology-Obstetrics, Faculty of Medecine, Catholic university of Graben

DOI: http://dx.doi.org/10.24327/ijrsr.2018.0907.2332

ARTICLE INFO

Article History:
Received 4th April, 2018
Received in revised form 18th May, 2018
Accepted 16th June, 2018
Published online 28th July, 2018

Key Words:
Death in Utero, Epidemio-clinical, Profile, Bunia.

ABSTRACT

Aim: To report the epidemiological and clinical profile of Death in utero in Bunia during the study period.
Methods: This is a retrospective descriptive cross-sectional study aimed at 174 cases of death in utero in Bunia from 01 January to 31 December 2017.
Results: The prevalence of fetal death was 3, 9%. The risk factors found were the non-follow-up antenatal care visits (62.1%), the history of death in utero, and high blood pressure (24.1%). Pregnant women aged 19 to 34 were represented, 63.2% of pregnant women came from the outskirts of Bunia, 58.6% of them had a low level of education, the secondary school represented 40.2%, 41.4%.
Conclusion: The death in utero is still a major problem in developing countries, particularly in Bunia / DR Congo. Screening for risk factors and especially the promotion of prenatal visits would contribute to its decrease.

INTRODUCTION

The death in utero , included in stillbirth, is defined as any fetal death before labor, occurring after the limit of fetal viability as determined by WHO, that is, 22 weeks of amenorrhea or a birth weight of more than 500 grams [1] . It concerns all neonates who are born without a heart beat and have not had respiratory movements [2, 3].

In utero death remains a common clinical situation, despite the improvement in the monitoring of pregnancies. It is a traumatic event and is the basis of many questions not only for the pregnant woman but also for the obstetrician [4, 5].

Thus, to obtain comparative data between different countries of the world, gestational ages greater than 28 weeks or fetal weights of at least 1000 grams are used to definitively define the death in utero. Taking into account these criteria, studies have determined a prevalence of in utero death equal to 2% worldwide, with 0.5% in high- income countries [3, 4]. In Africa, the mortality rate is between 6.46 and 19%, with an incidence of 5, 22% in Madagascar and 4.9% in Walikale [6, 7].

However, in our province, no study has been conducted to assess the extent of the problem, and this work will have the merit of establishing a data bank on this subject for future work, with a view to systematic monitoring of pregnancy until 'at term.

This study aims to bring the epidemiological and clinical profile of death in utero to Bunia.

MATERIAL AND METHODS

This study retrospective descriptive cross was conducted in Bunia in the D R Congo over a period from first January to 31 December 2017. It involved 174 cases of death in utero collected among 4411 deliveries carried out in the four health structures of the urban health district of Bunia (the Bunia General Referral Hospital, the Hospital Center of Rwankole,

Corresponding author:* **Taji Leki S
Department of Gynecology-Obstetrics, Faculty of Medicine, University of Bunia

the Hospital Center of Bunia town and the Evangelical Medical Center / Nyankunde).
The following cases were selected: Death in utero cases occurring from 28 weeks of amenorrhea in medical units that served as a study frame during the study period, and whose medical records had the essential parameters required for the study.

Were excluded, 13 cases whose records were not complete. The records of births and maternity medical records had served as a data source for this work.

Based on the prevalence of 4.9% reported in Walikale and in the absence of reliable data in our environment, we applied the following formula to determine the minimum size of our sample.

$$n = \frac{(Z)^2.p(1-p)}{e^2}$$

n = minimum sample size
z = confidence coefficient or 95% threshold (Z = 1.96)
p = prevalence of the studied parameter, which is in our case that of death in utero (4.9% or 0, 049 is about 0.05)
q = complement of prevalence (q = 1-p)
e = 5% or 0.05 sample error margin

$$n = \frac{(1,96)^2.0,05(1-0,05)}{(0,05)^2} = \frac{3,84.0,05.0,95}{0,0025} = 72,96=73$$

As a result, since the actual size (n = 174) is much larger than the calculated size, our sample is representative.

The Study Parameters are: Prevalence, Age, Provenance, Educational Level, Parity, Gestity, Gestational Age, Prenatal consultation Follow-up, Death in utero History, and Aetiological Factors.

The collected data were presented in the form of frequency tables and then processed on the computer software SPSS version 23.0.

RESULTS

Prevalence

Of a total of 4411 deliveries in our different medical units, 174 were deaths in utero, a prevalence of 3.9 %.

Sociodémographic characteristic

Table 1 Socio-démographic data

Age of pregnant women (years)	Effective (n = 174)	%
≤ 18	41	23.6
19-34	108	62.1
≥ 35	25	14.3
Origin		
Outskirts of Bunia	110	63.2
Bunia town	64	36.8
Level of education		
Primary	102	58.6
Secondary	67	38.5
Higher and University	05	02, 9

The death in utero was observed in older pregnant women 19 to 34 years (62.07%), resident outside the town (63.2%), and those with a level of primary education (58.6%).

Clinical data

Table 2 Case distribution according to anamnestic data

Parity	Effective (n = 174)	%
1 - 2	70	40.2
3 - 5	57	32.8
> 5	47	27
Gestational age (week of amenorrhea)		
28-36	72	41.4
37-41	67	38.5
≥ 42	35	20.1
Prenatal consultation follow-up		
No	116	66.7
Yes	58	33.3
History of death in utero		
No	166	95.4
Yes	8	4.6

Mean gestational age is 36.7 ± 3.9 (28-43),Death in utero was much more common in primiparous and second-hand women (40.2%), varying in gestational age between 28 and 36 weeks of amenorrhea (41.1%), in pregnant women who did not follow the prenatal consultation (66.7%) and in those having no previous history of death in utero (95.4 %).

Etiologic factors

Table 3 Distribution of cases by factors that are étiologi

Maternal causes	Effective (n = 174)	%
HTA	42	24.1
Malaria	12	6.9
Diabetes	10	5.7
Anemia	12	6.9
Term surpass	8	4.6
Uterine rupture	4	2.3
Feto-pelvic dysproportion	4	2.3
Fetal causes		
Anencephaly	3	1.7
Rhesus incompatibility	9	5.2
Adnexal causes		
Premature rupture of membrane	10	5.7
Retroplacental hematome	8	4.6
Placenta previa	7	4
Unidentified causes	45	25.9

DISCUSSION

Prevalence

The prevalence of death in utero in our study is 3.9 % for the selected period. It depends on one place to another according to several authors. This is higher than the prevalences found in other series including those Mouquet *et al* [8] and Mary [9] in France; Yehia [10] in Mali, Tamrakar and Chawla [2] in Nepal, Singh *et al* [11] in India and Tchaou *et al* [12] in Benin. This is mainly explained by the low socio-economic level, the low education of the population and the difficulty of access to health care in developing countries [12, 13, 14]. The prevalences found by Bwana KI *et al* [1], Z Andriamandimbison *et al* [6] and Kubuya KG [7], are higher than ours respectively 13.98%, 5.22% and 4.9%. Indeed, the i is established that the rate of fetal death is very variable from one country to another but also from one region to another.

Which is explained by cases lost in our environment, managed in non-listed structures.

Sociodémographics characteristics

It emerges that the death in utero occurred between 19 and 34 years of age of pregnant women was 62.07% of the cases, this is because the majority of pregnant women were in this age group . This finding does not agree with the results of other authors have shown the existence of an in utero deaths and increase in perinatal mortality in pregnancies these older women including in the work Bwana KI *et al* [1] , Andriamandimbison Z. *et al* [6] . The pregnant women from the periphery of Bunia presented the majority of cases, 63.20%. It is noted in the literature that the risk of fetal death is greater for patients from a disadvantaged socio-economic background. Even after adjustment to the socio-economic level [1,15]. These pregnant women are exposed to heavy work and are poorly followed in prenatal consultations. From our pregnant women, 58.62% were in the level of primary education. These results are similar to those found by Bwana KI *et al* [1], Andriamandimbison Z. *et al*. [6] .An educated woman is able to overcome these beliefs as she is able to better understand information about maternal care and also develop new hygiene behaviors.

Anamnestic data

In our series, the frequency of death in utero decreases with parity, while it increases with parity in the study from Bwana KI *et al* [1]. Indeed, Women perceive the risks associated with early pregnancy and tend to make more use of maternal health services in future pregnancies. It is 69.3% among pauciparians up to 35 weeks of amenorrhea and 67.2% above 35 weeks of amenorrhea [16].

In our series, the gestational age of 28-36 weeks of amenorrhea, representing 41.4%, this result is close to that found by Andriamandimbison Z. *et al* [6] according to which the age of 32-37 SA represents 36.44%.

The prenatal consultation were not followed in 66.7% of the cases, which is different from the study of Andriamandimbison Z. *et al* [6] of which only 15.56% did not follow the prenatal consultation. Many authors claim that poor pregnancy monitoring increases the risk of death in utero[17, 18, 19, 2 0]. In case of perinatal death, the risk of death in utero for the next pregnancy would increase by six to ten times. The death in utero recurrence rate was found in similar proportions in the literature: 5.33% for the study of Andriamandimbison [6] in Madagascar and 4.5% fo r the Nguyen in France. [21] Frias *et al*. [22], however, found an in utero fetal death recurrence rate of 25%, very high compared to that found in this study. Women with a history of fetal death are more likely to give birth to a death in utero than others [21, 23, 2 4].

Etiological factors

We could identify etiologies in 74.1 % of cases. Hypertensive diseases represented the first etiology with 24.1%, followed by maternal infections (syphilis and malaria) and anemia with 6.9%, Diabetes and premature rupture of membranes accounted for 5.7%. Our results are similar to those found by Bwana K. I *et al* [1], Oscar O. [16], Kangulu B *et al* [25] and S. Mezane *et al* [26] who found HTA as the first cause of Death in utero. The insufficiency of etiological assessments in the structures concerned by the study limited it and could underestimate certain causes.

CONCLUSION

The death in utero remains a major public health problem in developing countries, particularly in Bunia / DRCongo. Screening for risk factors and especially the promotion of prenatal consultations for rigorous monitoring of pregnancy is needed to reduce the rate of this complication of pregnancy.

References

1. Bwana K. I., Mwembo T. A., Ngoy L. J., Kilolo N. U. J., Kabamba N. M., Kalenga M. K. P. Frequence and Maternalsrisk factors of fetal intra-utérin deathat Kamina, Democratic Republic of Congo. *Pan Afr Med J*. 2016; 1-7.
2. Tamrakar S, Chawla C. Intrauterine FetalDeath and Its Probable Causes: two years experience in Dhulikhel Hospital-Kathmandu University Hospital. Kathmandu Univ Med J. 2012; 10(4):44-48. PubMed|Google Scholar
3. Quibel T, Bultez T, Nizard J, Subtil D, Huchon C and Rozenberg P. Morts fœtales in utero, *.J Gynécologie ObsBiol la Reprod*. 2014;43(10):883-907. PubMed| Google Scholar
4. Lamia A. and al. Associatedriskfactors with ante-partum intra-utérin fetal death. *Saudimedical journal*. February 2006. PubMed.
5. L. Gitz, O. Morel, O. Thiebaugeorges, J. Sibiude, P. Desfeux, E. Barranger; Termination of pregnancy and intra-utérine fetaldeathafter 14 weeks of pregnancy: whichprotocol for induction of labour in 2010? *Elsevier Masson* 2010.
6. Andrimandimbison Z, Randriambololona DMA, Rasoanandrianina BS, Hery RA. "Étiologies de la mort fœtale in utero: à propos de 225 cas à l'hôpital de Befalatanana au Madagascar". *Med Sante Trop*. 2013;23:78-82.PubMed | Google Scholar
7. Kubuya K. G.; Aspect épidémiologique, clinique et thérapeutique de la mort in utero au sein de l'hôpitalgénéral de référence de Walikale. *Annales de l'UNIGOM,* vol. VII, Num. 1, Juin 2017, pp. 283-302.
8. Mouquet MC, Rey S. Les disparités régionales de mortinatalité en France en 2012-2013. *Bull Epidémiol Hebd*. 2015; (6-7): 92-101. PubMed| Google Scholar
9. Marie C. Mort fœtale in utero: existe-t- il un intérêt à répéter les bilans d'hémostase pour détecter une coagulopathie? Thèse de Méd. UniversitéFrancois-Rabélais. 2014, 60p. Google Scholar
10. Yehia A-A. Mortinaissance au Centre de Santé de Référence et à l'Hôpital de Tombouctou à propos de 65 cas.Thèse de Méd. Université de Bamako, 2008, 69 p. Google Scholar
11. Singh N, Pandey K, Gupta N, Arya A, Pratap C, Naik R. A retrospective study of 296 cases of intra uterine fetal death satatertiary care center. *Int J Reprod Contraception, Obstet-Gynecol.* 2013;2(2):141-146.PubMed | Google Scholar
12. Tchaou BA, Hounkponou NFM, Salifou K, Zoumenou E, Chobli A. Les urgences obstétricales à l'hôpital

universitaire de Paroukou au Bénin: Aspects cliniques, thérapeutiques et évolutifs. *EurSci J*. 2015;11(9):260-272. PubMed| Google Scholar
13. Lansac J, Descamps P and Oury J. Pratique de l'accouchement, 5e éd. Paris: Masson, 2011, 593p. Google Scholar
14. Diallo FB, Baldé I, Diallo A, Baldé O, Conté I, Béavogui A, Diallo B. Mortinatalité: aspects sociodémographiques à l'hôpital régional de Kindia en Guinée. *Rev Méd Périnatale*. June, 2015; 13: 1-5.PubMed | Google Scholar
15. NkurunzizaM.Analyse du recours aux soins obstétricaux au Burundi: déterminants et motivations. Thèse, UCL, 2015, 340p. Google Scholar
16. Oscar O. Grossesse et accouchement chez la grande multipare: A propos de 242 cas colligés en 1996 à la maternité du Centre. Thèse Méd, Universitéd'Ouagadougou. 1998, 52p. Google Scholar
17. Stephensson O, Dickman PW, Johansson AL, Cnattingius S. The influence of socio-economicstatus on stillbirthrisk in Sweden. *Int J Epidemiol* 2001; 30 : 1296-301.
18. Traoré Y, Tequeté I, Théra AT, *et al*. Aspects socio-démographiques et pronostic des grossesses non suivies chez les patientes admises dans le service de gynécologie-obstétrique de l'hôpital Gabriel Touré. *Mali Med* 2007 ; 22 : 39-43.
19. Randrianaivo H, Robillard P-Y, Barau G, *et al*. Etude des 178 morts fœtales in utero dans le sud de l'île de la Réunion en 2001-2004. *J Gynecol Obstet Biol Reprod* 2006 ; 35 : 665-72.
20. Flenady V, Koopmans L, Middleton P, Froen JF, Smith GC, Gibbons K, *et al*. Major risk factors for stillbirth in highincome countries: asystematicreview and meta-analysis. Lancet 2011; 377: 1331-40.
21. Nguyen A. Pronostic des grossesses après antécédent de mort fœtale in utero: à propos de 110 grossesses suivies à l'hôpital Saint Antoine. Thèse d'Etat, Université Paris Val-de-Marne. 2009, 131p. Google Scholar
22. AgustinConde-Agudelo, José M. Belizan, José L. Diaz-Rossello; Epidemiology of fetaldeath in LatinAmerica. *Acta obset gynecol scand* 2000 ; 79 : 371-378.
23. Frias EA, Luikenaar RA, Sullivan AE, Lee RM, Porter TF, Branch DW, Silver RM. "Poor obstetricoutcome in subsequent pregnancies in women with priorfetaldeath. *Obstet Gynecol*. 2004; 104(3):521-526. PubMed| Google Scholar
24. Flenady V. Causes and risk factors of stillbirth in Australia. Perinatal society of Australia and new zelandcongress. Vol. 44 Gold coast. *J Paediatr child health* 2008 : A2-10.
25. Kangulu IB, Ngoy EK, Nzaji MK, KalengaMuenze P. "Facteurs de risque de faible poids de naissance en milieu semi-rural de Kamina, République Démocratique du Congo". *Pan Afr Med J.* 2014; 17,1-5. PubMed| Google Scholar
26. S. Mezane *et al*. The retroplacentalhematoma and fetaldeath in utero: About 49 cases and review of the literature. *Intern J of innovation and applied studies* Vol. 3 No. 2 June 2013, pp. 570-578.

How to cite this article:

Taji Leki S *et al*.2018, Epidemio-Clinical Profile of Death In Utero In Bunia In The Democratic Republic of Congo. *Int J Recent Sci Res.* 9(7), pp. 27789-27792. DOI: http://dx.doi.org/10.24327/ijrsr.2018.0907.2332

****