HEALTH SCIENCES AND DISEASES
The Journal of Medicine and Health Sciences

Article Original

Clinical Features and Management of Obstetric Fistula at the Protestant Hospital of Ngaoundéré (Cameroon)

Présentation clinique et prise en charge des fistules obstétricales à l'Hôpital Protestant de Ngaoundéré (Cameroun)

Ngaroua[*1&2], Aïssatou[2], Dah'Ngwa Dieudonné[2], Djibrilla Yaouba[2], Eloundou N. Joseph[3]

1 Regional Hospital of Ngaoundéré-Cameroun

2 Faculty of Medicine and Biomedical Sciences, of GAROUA University of Ngaoundéré-Cameroun

3 Faculty of Medicine and Biomedical Sciences, University of Yaoundé 1

Corresponding author: Dr Ngaroua, tel: (237) 699 978 351; email: mdngaroua2007@yahoo.fr

Key words: obstetric fistula, care
Mots clés : Fistule Obstétricale, prise en charge

RÉSUMÉ

Obstetric fistula is defined as a hole between the vagina and rectum or bladder that is caused by prolonged obstructed labor, leaving a woman incontinent of urine or feces or both, thus, leaving harmful effects on the health state of the patient life in society. The Cameroonian government has put in place specialized centers of obstetrical fistula care services whereby the protestant hospital of Ngaoundéré since June 2014 is recognized as the reference center for the regions of East and Adamawa (Cameroon). We carried out a cross sectional descriptive study with the objective to evaluate the care of obstetric fistula in this specialized center. 142 women constituted our sample size. Women aged between 26 and 35 years where the most representative of the different age groups. Dystocia delivery was the major cause of these fistula (57% of the cases). Vesicovaginal fistula was the most common type with 79.41%. Low access pathway was used in 93% with fistulorraphy as the major surgical technic used (80.98%). Fistulorraphy technique had a success rate of 80%, with 20% relapses. Our study shows good results of this center in the treatment of obstetric fistula, yet significant effort is still needed to attain the goal of complete eradication of obstetric fistula.

ABSTRACT

La fistule obstétricale est un orifice entre le vagin et la vessie ou le rectum, voire les deux, qui provoque une incontinence urinaire et/ou fécale. Le gouvernement Camerounais a mis sur pied des centres de prise en charge de ces fistules gratuitement à l'instar de celui de l'Hôpital Protestant de Ngaoundéré. Nous avons réalisé une étude transversale descriptive dont l'objectif était d'évaluer la prise en charge des fistules obstétricales dans ce centre de prise en charge des fistules obstétricales. Cent quarante-deux (142) patientes constituaient notre échantillon. Le groupe d'âge le plus représenté était celui de la tranche d'âge comprise entre 26 et 35 ans (40%) et la cause de la fistule était l'accouchement dystocique dans 57% des cas. Les fistules vésico-vaginales étaient les plus fréquentes (79,41%). Lors de la prise en charge, l'abord chirurgical par voie basse a été utilisé dans 93% des cas et la fistulorraphie comme technique de réparation dans 80,98% des cas. Lafistulorraphie a eu un taux de succès de l'ordre de 80% tandis que les récidives représentaient 20% des cas. Ces résultats montrent l'efficacité du centre de prise en charge des fistules de l'Hôpital Protestant de Ngaoundéré. Des efforts plus globaux s'imposent cependant pour atteindre le but d'éradiquer les fistules obstétricales.

INTRODUCTION

Obstetric fistula is an injury of the pelvic tissue caused mostly by a prolonged obstructed labor in the absence of appropriate obstetrical medical care to handle, as such leaving a woman incontinent of urine or feces or both [1,3]. Literally, it is a hole between the vagina and the rectum or bladder that is caused by prolonged obstructed labor, leaving the woman incontinent of urine or feces or both, thus, leaving some harmful effects on the health state of the patient life in society [4,5]. It is estimated at about 2 to 2.3 million women suffering permanently from problems related to obstetric fistula in developing countries with 50 000 to 100 000 new cases each year [7,8]. In 2014, about 289 000 women death record was registered during pregnancy or labor in the world [9]. Almost all the death records, that is 99% were registered from developing countries, hence more than 50% in sub-Saharan Africa either 57%, as such making Africa the region of the world where maternal mortality is very high [9,10]. For each woman who dies, 20 to 30 women suffers from an invalid postpartum pathology such as obstetric fistula [11,12]. On the other hand, more than 3 million new born babies dies each year, either 12.99% in

developing countries [12,13]. Yet, obstetric fistula continues to damage peoples life in developing countries notably those of Asia and sub-Saharan Africa [8,14].
In Cameroon, it is more than 19 000 women who suffers from obstetric fistula, amongst which more of the patients are from the Far-North region of Cameroon [15]. Related impacts of this obstetric fistula is a consequence of anatomic functions of the women and social exclusions, stigmatization and sexual discrimination [16, 18]. The Cameroonian government has put in place specialized centers of obstetrical fistula care services whereby the protestant hospital of Ngaoundéré since June 2014 is recognized as the reference center for the regions of East and Adamawa (Cameroon). The healthcare service of obstetric fistula of the protestant hospital of Ngaoundéré opened since two years from study date, thus the importance to carry out this study so as to find out and determine the epidemiological aspects and efficiency of care rendered till date. The aim of the work was to evaluate the care of obstetric fistula in the specialized center of obstetrical fistula of the Protestant Hospital of Ngaoundéré. Our specific objectives were to describe the epidemiology, the clinical features and the surgical management of obstetric fistula at the protestant hospital of Ngaoundéré (Cameroon).

METHODOLOGY

Type of study,
It was a descriptive cross sectional study

Setting
Center of obstetric fistula care service of the protestant hospital of Ngaoundéré

Study period
Nine month period of study from April to December 2016

Population study
All women suffering from obstetric fistula who recived care at the center of fistula care of the protestant hospital of Ngaoundéré during the study period.

- ***Inclusion criteria***
  Were included in this study all obstetric fistula patients cured in the center of fistula care of the protestant hospital of Ngaoundéré going from June 2014 to June 2016.
- ***Non-Inclusion criteria***
  All patients with incomplete medical file from the sample size of study and patients with bad diagnosis of obstetric fistula

MATERIALS AND METHODS

Materials
- Obstetric fistula register
- Patients medical file
- Questionnaire
- Hospitalization register of patients
- Anesthesia and resuscitation files
- Register of surgical intervention

Methods
Data were collected from patients' medical files and registers. Each patient had a medical file where his identity, clinical and biological analysis, diagnosis, treatment received and evolution of the pathology are revealed. Data from different registers were recorded through a questionnaire and analyzed through EPI Info version 7

Study limits
1- Absence of some medical files.
2- Insufficient information in some patients' medical file.

RESULTS

Age
The distribution of obstetric fistula with age on the population study shows that the most represented age group were those between 26 and 35 years with 40% then follows those of 15 to 25 years and 36 to 45 years respectively with 33.57% and 14.29%. Other age groups are less represented.

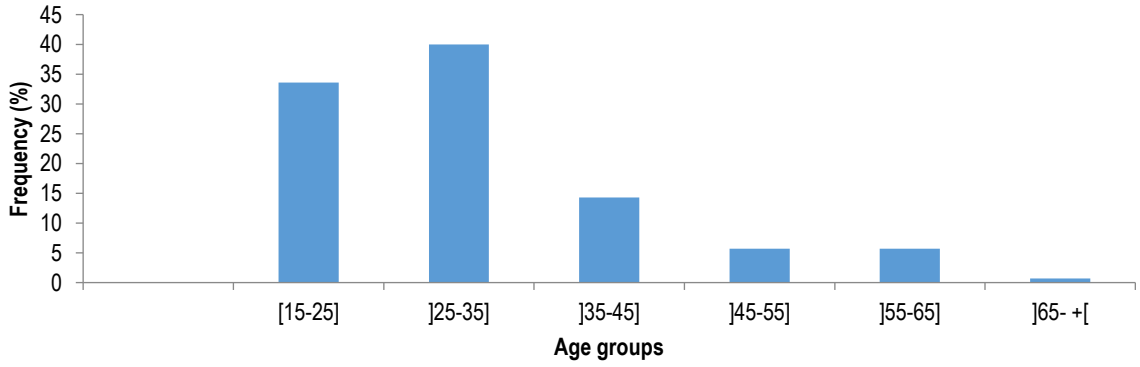

Figure 1: distribution of patients following age

Type of fistula
Between the different types of fistula registered in this center, vesicovaginal fistula (VVF) is the most represented with 79.41% followed by (vesicovaginal fistula) VVF-rectovaginal fistula (RVF) and RVF with respectively 8.09% and 6.62%.

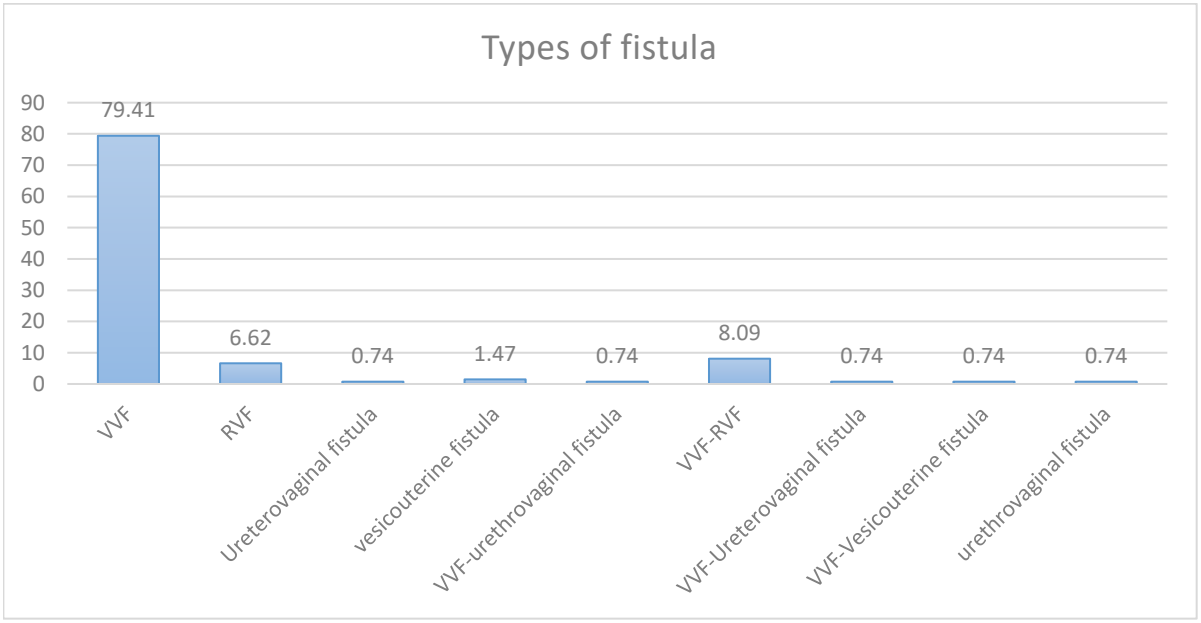

Figure 2: Distribution of patients following the different types of fistula
VVF: vesicovaginal fistula) . RVF: rectovaginal fistula

Surgical technics used for treatment
The distribution of surgical technics used during the repair procedure of obstetric fistula is fistulorraphy in more than 80.99%.

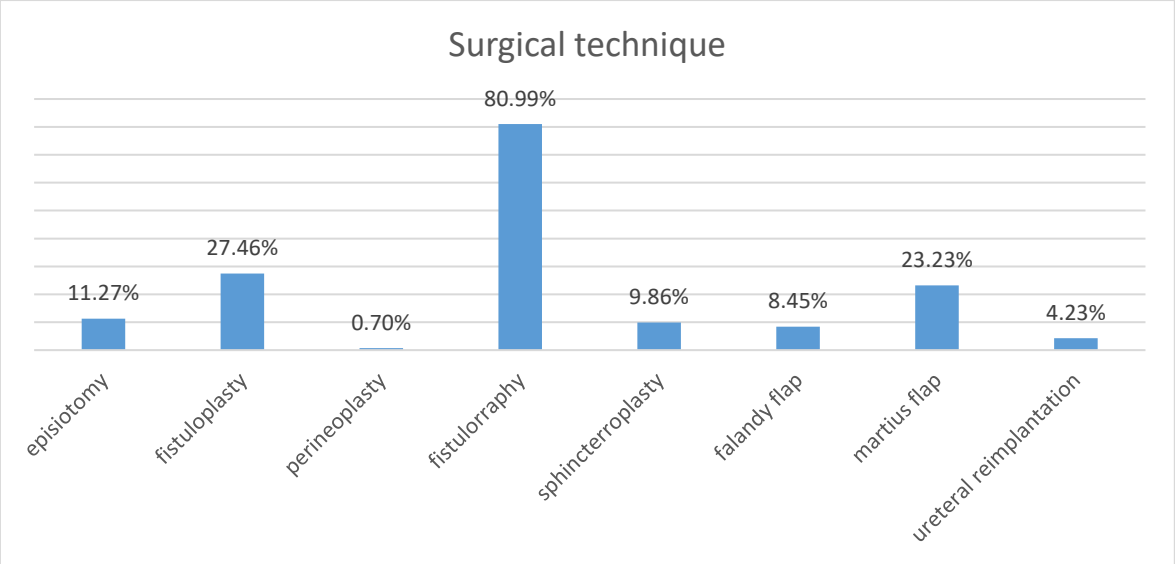

Figure 3: Distribution of patients following surgical technique

Recurrence
We notice that 20% of the population sample who came back for their control rendezvous had recurrences, while 80% did not.

DISCUSSION

Firstly, concerning the socio-demographic characteristics of this study, it is shown clearly that women aged between 26 to 35 years were the most represented with 39.43%. It approaches results found by Mugwaneza in Rwanda, study carried out in 2004 where he affirms that the age group most represented is that below 35 years with a percentage of 49%[53].

Secondly, concerning the causes of obstetric fistula, dystocia labor is the most incriminated with about 57%. These results joins the study of the UNFPA in 2003 where dystocia labor remains dominant in low income countries with low medication supply thus constituting about 97% of the whole vesicovaginal fistula [27]. This may be as a result of the lack of healthcare infrastructures for prenatal consultations and obstetrical emergencies. UNICEF and other NGO in 2013 found that only 8.2% to 35% of women presenting complications due to labor during delivery received care in an appropriate center in certain under developed country [56].

Amongst the different types of fistula registered in the Ngaoundéré protestant center, vesicovaginal fistula is the most represented with 79.41%. This great predominance was found equally in Mali by Qi and al either 79% [57].

Spinal anesthesia was the most practiced anesthetic type during study period with 70.40%; which is a little bit less than the 80% obtained by Moulaye in 2006 in Mali [58]. The predominance of the use of this anesthetic type may be as a result of its adaptive pattern in urogenital pathologies such as obstetric fistula.

The surgical access mostly used in the study was that of low pathway with 93%, slightly higher than that obtained by Laurent in 2006 in a study that states that the treatment by low pathway was applied in 91.4% [55]. This is explained by the fact that the low pathway prevents from a laparotomy hence a comfort guaranty for post-surgery recovery. The surgical technique used in this study for the treatment of fistula shows that fistulorraphy is the most used technique with 80.89% on the patients. It was similar for Laurent in 2006 who obtained with the technic of fistulorraphy 65.7% [55].

Concerning the use of urinary probe during fistula cure, we notice that dwelling urinary probe was predominant in 50.40% which is greater than the results of Hinrishsen and al where they obtained spontaneous healing upon draining in 15 to 20% of the cases [59].Concerning after surgery follow-up, we notice a success rate of 80% the first time of cure. Obtained results are similar to those of Hategekimana who obtained 70% of healing without incontinence of effort during first surgery. Also our results are similar to those of Gweyes and al in Senegal where in 1992, they obtained a global healing rate of 86% [60]. Similarly, still Laurent in 2006 obtained in 80% of cases the cure of fistula without any incontinence [55].

Concerning relapses, we noted that after surgery follow-up when the mixed access was used, we had 33.33% relapse which is less than the percentages obtained by Daouda in Mali in 2013 who obtained 50% [61]. Concerning the upper access pathway, we registered 0% of relapse in this study while Daouda registered 15%; percentage far greater than ours. We realize as such that the tendency of relapse is far greater with the mixed access technique than in upper access pathway in both cases.

CONCLUSION

Coming to the end of this study where we had to evaluate the care of obstetric fistula at the protestant hospital of Ngaoundéré, we obtained:

- 80% success rate at departure
- 20% of relapse

At the observation of these results, we can say that this center put in great efforts for the eradication of Obstetric fistula but still more effort has to be done so as to attain the objectives of the creation of this center that was to eradicate obstetric fistula.

REFERENCES

1. Hilton P. Vesico-vaginal fistulas in developing countries, 2003. International Journal of Gynecology & Obstetrics.; 82(3): 285-295.
2. Nafiou I, Idrissa A, Ghaïchatou AK, Roenneburg ML, Wheeless CR, Genadry RR. Obstetric vesico-vaginal fistulas at the National Hospital of Niamey, Niger 2007. International Journal of Gynecology & Obstetrics; 99 Suppl 1: S71-S74.
3. Moudouni S, Nouri M, Koutani A, Ibn Attaya A, Hachimi M, Lakrissa A. Les fistules vésico-vaginales obstétricales A propos de 114 cas, 2001. Progrès en Urologie ; 11: 103-108.
4. Arrowsmith S, Hamlin EC, Wall LL. Obstructed Labor Injury Complex: Obstetric Fistula Formation and the Multifaceted Morbidity of Maternal Birth Trauma in the Developing World, 1996. Obstetrical & gynecological survey ; 1(9) : 568-574.
5. Danso KA, Martey JO, Wall LL, Elkins TE. The epidemiology of genitourinary fistulae in Kumasi, Ghana, 1977-1992 .International Urogynecology Journal. 1996; 7(3) : 117-120.
6. Donnay F, Ramsey K. Eliminating obstetric fistula: Progress in partnerships, 2006. International Journal of Gynaecology et Obstetrics ; 94(3) : 254-261.
7. OMS. 10Faits sur la fistule obstétrique. 2014. http://www.who.int/features/factfiles/obstetric_fistula/fr/ ; Consulté le 15 Août 2014.
8. UNFPA. Quand l'accouchement nuit à la santé: la fistule obstétricale. 2014. http://www.unfpa.org/webdav/site/global/shared/factsheets/srh/FR-SRH%20fact%20sheet-Fistula.pdf; Consulté le 27 Mars 2016.
9. OMS. Mortalité maternelle. Aide-mémoire N°348. 2014. http://www.who.int/mediacentre/factsheets/fs348/fr/. Consulté le 28 Mars 2016.
10. WHO, UNICEF, UNFPA, the World Bank. Trends in Maternal Mortality: 1990 to 2012. Geneva, Switzerland; OMS.
11. Guttmacher Institute, UNFPA. "Adding it Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health, 2009. New York, USA. Guttmacher Institute.
12. Say L, Chou D, Gemmil A, Tunçalp O, Moller AB, Daniels J, GülmezogluMetin A. Global Causes of Maternal Death: A WHO Systematic Analysis, 2014. The Lancet Global Health; 2(6): e323-e333.
13. UNICEF. "Committing to Child Survival: A Promise Renewed" 2012. New York. UNICEF.
14. Cousens S, Blencowe H, Stanton C, Chou D, Ahmed S, Steinhardt L, Creanga AA, Tunçalp O, Balsara ZP, Gupta S, Say L. Lawn JE. National, regional, and worldwide estimates of stillbirth rates in 2009 with trends since 1995: a systematic analysis. The Lancet Global Health. 2011; 377(9774): 1319-30.
15. Vangeenderhuysen C, Prual A, Ould el Joud D. Obstetric fistulae: Incidence estimates for sub-Saharan, 2001 Apr. Int J Gynaecol Obstet.; 73(1):65-6.

16. Institut National de la Statistique, Ministère de l'Economie de la Planification et de l'Aménagement du Térritoire, Minitère de la Santé Publique. Enquête Démographique et de Santé et à Indicateurs Multiples (EDS-MICS). 2012. Maryland, USA ICF International, Calverton.
17. Ampofo EK, Omotara BA, Otu T, Uchebo G. Risk factors of vesico-vaginal fistulae in Maiduguri, Nigeria: a case-control Study, 1990. Tropical doctor; 20(3): 138-139.
18. Browning A, Fentahun W, Goh JTW. The impact of surgical treatment on the mental health of women with obstetric fistula, 2007. British journal of obstetrics and gynaecology; 114:1439-1441.
19. East, Central, and Southern African Health Community (ECSA-HC) et fistula Care/EngenderHealth. 2012. Prévention et prise en charge de la fistule obstétricale : cours pour les infirmières et les sages-femmes. New York: EgenderHealth/fistula Care.
20. Philipe HJ. Fistules obstétricales. EM C Obstétrique, 1996, 5-078-C-10.
21. El Hassani M. La fistule vesico-vaginale, [thèse]. Rabat : Université Mohammed V, 1998, N° 239,158p.
22. Vangeenderhuysen C, Prual A, Ould el Joud D. Obstetric fistulae: Incidence estimates for sub-Saharan, 2001 Apr. Int J Gynaecol Obstet.; 73(1):65-6.
23. Les fistules vésico-vaginales Aspects étio-pathogéniques et thérapeutiques au Sénégal Médecine d'Afrique Noire 1992, Vol 39, p 8-9.
24. Moudouni S,Nouri M , Koutani A,Attya A, hachimi M , Lakrissa A. Les fistules vésico-vaginales obstétricales à propos de 114 cas Progrès en Urologie 2001, Vol 11, p 103-8.
25. Richard L,Dake W, Adam W, Micheal. Gray's : Anatomie pour les étudiants pages 478-496
26. Rouvière. H et VS A: Anatomie humaine descriptive, topographique et fonctionnelle; Tome II; le tronc; 14e édition; Masson.
27. Deuxième réunion du groupe te travail pour la prévention et le traitement de la fistule obstétricale. Addis Abeba, 30 Octobre- 1erNovembre 2002 UNFPA 2003 http://www.unfpa.org/upload/lib_pub_file/409_filename_addis-report-french.pdf
28. Bjijou Y. Les fistules vesico-vaginales (A propos de 1000 cas) [Thèse]. Rabat : Université Mohammed V, 1999, N°172, 174p.
29. Ouattara K, Cisse C. Tembely A, Ouattara Z, Ouattara SS. Problématique de la fistule vésico-vaginale obstétricale, service d'urologie Hôpital du Point-G, Bamako, Mali, http://www.gfmer.ch/Presentations_Fr/Pdf/Ouattara_Fistule.pdf
30. Du Sablon M L. Les fistules vésico-vaginales Développement et Santé, avril 1990, N°86
31. Sefrioui O, Aboulfalah A, Benabbes Taarji H, M atar N, Elmansouri A. Profil actuel des fistules vésico-vaginales obstétricales à la matérnité universitaire de Casablanca. Ann Urol 2001, Vol 35, p 276
32. Couvelaire R. Les fistules vésico-vaginales « complexes ».2èmes Journées Urologiques de Necker, Edition Masson, 1982, p 103-8.
33. Androutsos G. Le « prince de la chirurgie », Antoine Jobert de Lamballe (1799-1867) et la première cure radicale des fistules vésico-vaginales par sa méthode de cystoplastie par glissement Progrès en Urologie 2003, Vol 13, p 707-10.
34. Lugagne P M, Leo JP, Richard F. Fistules uro-génitales.EMC Gynécologie, 1991, 220-A-10
35. Makhlouf A. Les fistules vésico-vaginales (à propos de 312 cas) [Thèse] Casablanca : Université Hassan II, 2000, N°63, p 123.
36. Paparel P, Caillot JL. Chirurgie du grand épiploon en urologie: principes et indications. EM C Nephrologie-Urologie 2004, N°4, p 12-15.
37. Tazi K, Moudouni S, Koutani A, Ibn Attaya A, Hachimi M, Lakrissa A. Traumatisme grave de l'urètre féminin après fracture du bassin. A propos d'un cas, Progrès en Urologie, 1999, Vol 9, p 1123-1126.
38. Andrew B, Brian H, John K, Tom R, Joseph R. Catalogage à la source: Bibliothèque de l'OMS: Fistule obstétricale : principes directeurs pour la prise en charge clinique et le développement de programmes / éditeurs: Gwyneth Lewis, Luc de Bernis..
39. Monseur J. Grandes nécroses uro-génitales post-partum, cure par sigmoido-vaginoplastie. 2èmes Journées Urologiques de Necker, Edition M asson, 1982, p 133-141.
40. Richard F. Fistules vésico-vaginales. ConStat, 1995, Vol 3, p 19-22.
41. Tazi K, El Fassi J, Karmouni T, Koutani A, Ibn Attya AA, Hachimi M, Lakrissa A. Les fistules vesico-vaginales. A propos de 55 cas Ann Urol, 2001, Vol 35, p 339- 343.
42. Benchekroun A, Lakrissa A, Essakalli HN, Faik M , Abakka T, Hachimi M et al. Les fistules vésico-vaginales: à propos de 600 cas, Journal Urologie, 1987, Vol 93, p 151
43. Benchekroun A, El Alj HA, El Sayegh H, Lachkar A, Nouini Y, Benslimane L et al. Les fistules vésico-vaginales: à propos de 1050 cas.Ann Urol 2003, Vol 37, p 194- 198.
44. Hermieu J, Boccon-Gibod L. Fistules vésicales Edition technique-EMC-1993, Nephrologie-Urologie, 18-215-A-10.p1- 6.
45. Creanga AA, Genadry RR. Obstetric fistulas: a clinical review. Int J Gynaecol Obstet. 2007 Nov; 99 Suppl 1:S40-6
46. Zmerli S. Les fistules vésico-vaginales (à propos de 260 cas). 2èmes Journées Urologiques de Necker, Edition Masson, 1982, p 109-116
47. Dubernard. JM, Abbon.C , Chirurgie urologique Edition Masson, Paris 2001, p. 277- 286.
48. Cortesse A, Colau A. Fistules vésico-vaginales. Surgery for vesicovaginal fistula. 140 Ann Urol., 2004, Vol 38, p 52-66
49. Mensah, M amadou BA, Gueye SG, Sylla C, Ndoye AK, Moreira P et al. Aspect neurologique de la fistule vésico-vaginale d'origine obstétricale. Progrès en Urologie, 1996, Vol 6, p 398-402.
50. Hubert J. Vesiko- vaginale Fistelchirurgie, Bénin, Africa, 6. -23. April, 2003
51. Sosthene A. Base de données pour l'évaluation de la prise en charge de la fistule obstétricale. Training in Reproductive Health Research, Geneva 2005, GFMER scholarship. http://www.gfmer.ch/PGC_RH_2005/pdf/Fistule_Benin.pdf
52. Tostan J. Traitement conservateur des fistules urogénitales après chirurgie gynécologique : Intérêt de la colle de fibrine. Acta Urologica Belgica, 1992 Vol 60, N°3
53. Mugwaneza, A., Van Damme J., Vyankandondera, J, Aspects épidémiologiques et étiopathogéniques des fistules obstétricales au Rwanda. UNR Butare, 2004<<Mémoire>>
54. UNFPA avec l'appui de l'INS. 6ème programme de coopération Cameroun-UNFPA, Enquête de base sur les indicateurs du CPAP 2013-2017. Décembre 2014.
55. Laurent SIBORUREMA. Fistules urogénitales d'origine obstétricale : aspects épidémiologiques, socioéconomiques, cliniques et thérapeutiques à l'hôpital de Ruhengeri, Rwanda. National University of Rwanda-Docteur en médecine générale 2006.
56. UNICEF, WHO, the World Bank, United Nations Population Division. The Inter-agency Group for Child Mortality Estimation (UNIGME), 2013. Levels and Trends in Child Mortality; New York, USA UNICEF.
57. Qi Li Ya, Ouattara Z, Ouattara K. Traitement des fistules vésico-vaginales à l'hôpital de Kati, à propos de 34 cas. Médecine d'Afrique Noire 2000, Vol 47, N°3.
58. Moulaye L. Etude des fistules Vesico-vaginales Obstétricales à l'hôpital Nianankoro Fomba de Ségou [Thèse] au Mali en 2006
59. Harouna YD, Seiboi A, M aikano S, Djambeidou J, Sangare A, Bilane SS et al. La fistule vésico-vaginale de cause obstétricale enquête auprès de 52 femmes admises aux villages des fistuleuses Médecine d'Afrique Noir, 2001, Vol 48, N°2, p 55-59
60. Gueye, M., Diagne, B.A. et Mensah**, A.,** Les fistules vésico-vaginales : Aspects étiopathogéniques et thérapeutiques au Sénégal. Méd. d'Afrique. Noire : 1992,32(8).
61. Daouda Sangaré. Etude des facteurs influençant les résultats dans la prise en charge des fistules uro-génitale. [Thèse] au Mali en 2013.