

**Research Article**

Copyright © All rights are reserved by Ache Haroun

Caesarean Section in the N'Djamena National Center of Fistula Treatment: Indications and Prognosis

Ache Haroun^{1*}, Gabkika Bray Madoué², Saleh Abbdelsalam³, Hawaye Cherif², Moussa kalli⁴, Zakaria Brahim¹, Abbamai Bechir¹, Abdelsadick Abdallah Yassine⁵ and Foumsou Lhagadang²

¹N'Djamena National Center of fistula treatment, Chad

²N'Djamena Mother and Child University hospital, Chad

³N'Djamena University Hospital la Renaissance, Chad

⁴N'Djamena r National Reference University Hospital, Chad

⁵Chadian and Chinese friendship Hospital, Chad

***Corresponding author:** Ache HAROUN SAÏD, N'Djamena National Center of fistula treatment, Chad.

Received Date: April 28, 2024

Published Date: June 24, 2024

Abstract

Introduction: Caesarean section is an artificial delivery after surgical opening of the uterus. It helps to reduce maternal and fetal morbidity and mortality.

Objective: improve the management of caesarean section.

Patients and method: The study was retrospective and descriptive, considering patients admitted for caesarean section during a period of ten active month from January 1st to October 31st, 2020 performed in N'Djamena, National Center of fistula treatment. We have included in this study all consent patients that had undergone a caesarean section in N'Djamena National center of fistula treatment.

Result: We recorded 219 cases of caesarean section among 3847 deliveries giving a frequency of 5.6%. Among these caesarean section, 83.6% (n=183) were performed in emergency. Fifty deux patients (23,7%) had had antecedent of caesarean section. Patients that performed at least 4 prenatal cares represented 43,9%. Self-referred patients represented 62.1% (136/219) of cases. Main indications of caesarean section were mechanic dystocia representing 37.9%. No maternal death was recorded. The most common maternal complication was parietal suppuration, with 5 cases (2.3%). Neonatal infection was noted in 8 newborns (3.9%), followed by respiratory distress in 3.9% of cases.

Conclusion: The caesarean section rate remains low compared with the WHO target range. The best way to improve the rate of caesarean section is the achievement of the best prenatal cares that are a moment to discover abnormally.

Keywords: Caesarean section; NCFT; Tchad

Introduction

Caesarean section is an artificial delivery after surgical opening of the uterus. It is most often performed abdominally, after celiotomy [1]. It helps to reduce maternal and fetal morbidity and mortality [2].

In Chad, according to the results of the national data of 2014-2015, the maternal mortality ratio is 860 per 100,000 live births [3]. Despite the efforts made by the government and his partners, recent data highlight a caesarean section rate of 3.9% [4].

WHO considers that the ideal Caesarean section rate must be between 10 - 15% [5].

Objective: improve the management of caesarean section.

Patients and Method

The study was retrospective and descriptive, considering patients admitted for caesarean section during a period of ten active month from January 1st to October 31st, 2020 performed in N'Djamena, National Center of fistula treatment. We have included in this study all consent patients that had undergone a caesarean section in N'Djamena National center of fistula treatment. Studied variables were sociodemographic, clinical and therapeutic. Data were collected using a file and analyzed with SPSS V18 software.

Results

Socio-demographic aspects

We recorded 219 cases of caesarean section among 3847 deliveries giving a frequency of 5.6%, Among these caesarean

sections, 83.6% (n=183) were performed in emergency. The average age of parturient was 24.5 years, with extremes of 15 and 45 years. Considering living areas, 95.4% (n=209) of patients were from urban areas. According to school level, 29.6% (n=65) were schooled and 70.4% (n=154) unschooled.

Surgical antecedent

Fifty deux patients (23,7%) had had antecedent of caesarean section.

Term

Patients with pregnancy full term (37- 41Weeks + 6 days) represented 93.1%(n=204) and fifteen (7,9%) have pregnancy term less than 37 weeks.

Prenatal cares

Patients that performed at least 4 prenatal cares represented 43,9% (n=96) followed by those that had done 1-3 prenatal cares and 0 prenatal visit with respectively 32,4% (n=71) and 23,7% (n=52).

Admission mode

Self-referred patients represented 62.1% (136/219) of cases. They were followed by evacuees with 32.9% of cases. We noted 5% referrals.

Indications

Main indications of caesarean section were mechanic dystocia representing 37.9% (Table 1).

Table 1: Indication of caesarean section.

Indications	n	%
Mechanical dystocia		
surgical pelvis	42	19.2
Fetal macrosomia	21	9.6
Adnormal presentation	20	9.1
Dynamic dystocia		
Stagnation of dilatation	20	10.9
Indications related to genital status		
Scarred uterus	36	16.4
History of assistance of médical procréation	8	3.7
Fetal adnexal indications		
placental abruption	30	13.7
Cord prolapse withn living fetus	5	2.3
Placenta previa	11	5.0
Chorioamnionitis	4	1.8
Fetal distress	18	8.2
Total	219	100

Type of anesthesia

Spinal anesthesia was the most commonly used type of anesthesia, with 205 cases (93.6%).

Prognosis

5.8.1. Maternal prognosis: No maternal death was recorded (Table 2).

The most common maternal complication was parietal

suppuration, with 5 cases (2.3%).

Perinatal prognosis

Neonatal infection was noted in 8 newborns (3.9%), followed by respiratory distress in 3.9% of cases (Table 3).

Hospitalization duration

Patients with hospitalization period between 4-5 days represented 95.5% (n=209). The extremal range was 4 and 15 days.

Table 2: maternal complications.

Maternal complication	n	%
Endometritis	3	1.3
Parietal suppuration	5	2.2
Hemorrhage	3	1.3
Abdominal bloating	3	1.3
Thrombophlebitis	1	0.4

Table 3: Neonatal complications.

Complications néonatales	n	%
Respiratory distress	7	3.4
Neonatal infection	8	3.9
Neonatal death	5	2.6

Discussion

The frequency of caesarean section was 5.6%. This rate is low compared with the range set by the WHO (10-15%). This result is lower than those of Gabkika [4] in 2020 in Chad, and Osegi [6] in Nigeria that had reported respectively 33.9% and 28.6%. This rate can be explained by the status of National center of fistula treatment which is considered as hospital of second level [7].

Emergency caesarean sections accounted for 83.6%. This rate is close to that of Ymélé [8], who noted 84.5%. On the other hand, it is higher than that of certain African authors such as Tantchou [9] and Ngowa [10] that reported respectively 15% and 43.9%. This figure for emergency caesarean sections depends on factors such as the occurrence of maternal and/or fetal complications justifying emergency extraction.

The average age of patients was 24.5 years, with extremes ranging from 14 to 45 years. This result is lower than that of Essiben [11] in Cameroon in 2017, who found 27 years. This difference can be explained by the fact that girls in Chad marry earlier.

The age ranges from 20 The 20-24 age group is the most represented, with 39.2% of cases. This rate is lower than that obtained by Varija [12] in 2018 in India, who reported 51%. This similarity can simply be explained by the fact that this is the normal age for marriage, and therefore for childbirth.

Parturients who had had a previous caesarean section accounted for 16%. This result is lower than that of Kasongo [13]

and Mbungu who reported a previous caesarean section in 21,6 and 25.4% [14]. This could be explained by factors such as early marriage among teenagers and primiparity, which contribute to mechanical dystocia. In this study, Caesarean section was performed in 93.1% of full-term pregnancies. Tantchou [9] found a lower rate than ours, with 89.4%.

Good-quality prenatal contacts are an essential element in reducing maternal mortality. In this series, 43.9% of caesareans had more than four antenatal consultations. Gabkika [4] had noted that 32.6% of patients had had 3 to 4 antenatal contacts, Bello [15] Nigeria in 2015 had on the other hand noted that only 42.6% of patients had received antenatal care in hospital and Ymélé [8] had found that 63.6% of patients had had 4 or more antenatal contacts. This difference could be explained on the one hand by the insufficient number of gynecologists-obstetricians in our country, and on the other by the lack of reproductive health awareness.

The indication for emergency caesarean section varies according to the literature. In this study, the main indication for caesarean section was mechanical dystocia in 37.9% of cases. Our findings are different with what reported by Gabkika [4], Mbungu [13], Kasongo [14] that noted a that scares uterus is the main indication of caesarean section ranging from 24,1 to 52,3%. The high frequency of dystocia observed this study can be explained on the one hand by prenatal monitoring, which is generally defective, and on the other by the absence of paraclinical evaluation of the obstetric pelvis (radiopelvimetry) during pregnancy.

In this series, the maternal complication rate was 6.8%, dominated by parietal suppuration in 2.2% and no maternal death. These results are better than those reported by Gabkika [4] who found 12.6% maternal complications and 0.9% maternal death, Koulimaya-Gambet who recorded 0.4% maternal death [16] and kinenkinda [17] 11.6% as rate of maternal death. Concerning fetal complications, we reported a rate of 9.9% of perinatal complications. Neonatal infection was the common complication with a rate of 3.9%. Our findings are higher than the 7.7% of perinatal complications noted by Gabkika [4]. On the other hand, this rate is lower than the rate of 28.6% as perinatal complications reported by Kinenkinda [17]. This can be explained by the delay to perform caesarean section in The N'Djamena Center of national treatment of fistula. According to the literature [18] factors like as maternal dystocia, fetal distress, and the delay to perform caesarean section are recognized as situation can lead to fetal complication.

Conclusion

The caesarean section rate remains low compared with the WHO target range. Indications are dominated by mechanical dystocia. Infections are the main cause of maternal-fetal morbidity. Perinatal mortality remains high.

The best way to improve the rate of caesarean section is the achievement of the best prenatal cares that are a moment to discover abnormally

Acknowledgement

None.

Conflict of Interest

Authors declare no conflict of interest.

References

1. Merger R, Levy J, Melechi J (2001) Précis d'obstétrique, 6th edition Paris Masson, SA, pp. 533-541.
2. Doyin O, Djamila C, Colette D (2004) Feuille de route : L'Union Africaine S'engage à lutter contre la mortalité maternelle. Regional reproductive health bulletin 2: 11-19
3. (2014-2015) Ministère de l'Économie, du Plan et de la Coopération. Institut National de la Statistique, des Etudes Economiques et Démographiques (INSEED). Enquête Démographique et de Santé et à Indicateurs Multiples au Tchad (EDS - MICS): 44 - 63.
4. Gabkika BM, Lhagadang F, Mahayadine K, Sile N (2020) Time from Decision to Completion of Emergency Caesarean Section and Prognosis in N'Djamena Mother and Child University Hospital. World J Gynecol Womens Health 3: 1-4.
5. (1985) WHO. Appropriate technology for birth. Lancet Lond Engl 2: 436-437.
6. Osegi N, Makinde O (2020) Towards optimizing caesarean section: a five-year review of caesarean sections at a Southern Nigeria hospital. Int J Reprod Contracept Obstet Gynecol 9: 205-211.
7. Boatin AA, Schlottheuber A, Betran AP, Moller A-B, Barros AJD, et al. (2018) Within country inequalities in caesarean section rates: observational study of 72 low and middle income countries. BMJ 360: k55.
8. Ymele F, Chancelle NN, Jeanne HFH, Loic DFD, Robinson EM (2019) Delay between decision and performance of emergency caesarean section. Health Sci Dis 2 : 13-19.
9. Tantchou TDD, Ntamack JB, Olé BS, Ndjambou EM, Pither S, et al. (2020) Emergency caesarean section at the Maternity Ward of the Hôpital d'Instruction des Armées Omar Bongo Ondimba in Libreville: Time taken to perform and factors contributing to delay. Health Sci Dis: 21.
10. Ngowa JDK, Ngassam A, Fouogue JT, Metogo J, Medou A, et al. (2015) Early maternal complications of caesarean section: about 460 cases in two teaching hospitals in Yaoundé, Cameroon. Pan Afr Med J 21: 265.
11. Essiben F, Belinga E, Ndoua CN, Moukouri G, Eman MM, et al. (2020) La Césarienne en Milieu à Ressources Limitées: Évolution de la Fréquence, des Indications et du Pronostic à Dix Ans d'Intervalle. Health Sci Dis: 21.
12. Varija T, Veerendra KCM, Tarihalli C (2018) Analysis of caesarean section rate in tertiary care hospital according to Robson's 10 groups classification. Int J Reprod Contracept Obstet Gynecol 7: 1380-1385.
13. Kimbasha Kasongo S, Mukuku O, Kinenkinda X, Kakoma J-B. Quality of Caesarean Delivery and its Determinants in Lubumbashi, Democratic Republic of Congo n.d. :8.
14. Muyayalo K (2017) Caesarean section frequency according to Robson's classification in 3 maternity units in the city of Kinshasa, Democratic Republic of Congo. An Afr Médecine 10: 2535-2544.
15. Bello FA, Tsele TA, Oluwasola TO (2015) Decision-to-delivery intervals and perinatal outcomes following emergency cesarean delivery in a Nigerian tertiary hospital. Int J Gynecol Obstet 130: 279-283.
16. Koulimaya-Gombet C, Diouf A, Moussa D, Dia A, Sène C, Moreau J, et al. (2017) Pregnancy and delivery in patients with a history of caesarean section in Dakar: epidemio-clinical therapeutic and prognostic aspects. Pan Afr Med J 27:42-49.
17. Kinenkinda X, Mukuku O, Chenge F, Kakudji P, Banzulu P, et al. (2017) Caesarean section in Lubumbashi, Democratic Republic of Congo I: frequency, indications and maternal and perinatal mortality. Pan Afr Med J 27:72-77.
18. Oppong SA, Tuuli MG, Seffah JD, Adanu R (2014) Is there a Safe Limit of Delay for Emergency Caesarean Section in Ghana? Results of Analysis of Early Perinatal Outcome. Ghana Med J 48(1): 24-30.