OPEN ACCESS

Greenfort International Journal of Applied Medical Science

Abbreviated Key Title: Grn Int J Apl Med Sci | ISSN 2584-2420 (O)
Greenfort International Publisher, Assam, India
Journal homepage: https://gijams.in

Original Research Article

Cesarean Section: Epidemiological and Clinical Aspects at Gao Hospital in 2017 in Mali

Bocary Sidi KONE[1,9], Mahamoudou COULIBALY[4,9], Kalifa TRAORE[1,9], Sema Keita[2,9], Cheickna Sylla[3,9], Yacouba SYLLA[6,9], Issa GUINDO[4,9], Bamba Brehima[4,9], Mamadou HAÏDARA[4,9], Dramane FOMBA[5,9], Yacouba Aba COULIBALY[3,9], Modibo DICKO[6,9], Seydou Z Dao[7,9], Sékou Bakary KEITA[1,9], Mahamadou Keita[6,9], Seydou FANE[3], Siaka Amara SANOGO[3,9], Sitapha DEMBELE[11,9]

[1]Mohamed VI Mother and Child Polyclinic in Bamako, Mali.
[2]Fana Referral Health Centre, Koulikoro, Mali.
[3]Gabriel Touré University Hospital in Bamako, Mali.
[4]Kalaban Coro Referral Health Center, Bamako, Mali.
[5]Marakala Referral Health Centre, Ségou, Mali.
[6]Referral Health Center of Commune I of the District of Bamako, Mali.
[7]Referral Health Center of Commune II of the District of Bamako, Mali.
[8]Referral Health Center of Commune VI of the District of Bamako, Mali.
[9]National Centre for Scientific and Technological Research in Bamako, Mali.
[10]Timbuktu Hospital, Mali.
[11]Fousseyni DAO Hospital in Kayes, Mali.

***Corresponding author:** Dr KONE Bokary Sidi, Prof. SYLLA Cheickna

DOI: 10.62046/gijams.2023.v01.i01.001 | **Received:** 03.12.2023 | **Accepted:** 13.12.2023 | **Published:** 15.12.2023

Abstract: The aim was to evaluate the epidemio-clinical aspects of caesarean section at Gao Hospital. **Materials and methods:** This is a cross-sectional study with retrospective data collection from January 1 to December 31, 2017. It concerned the Gao region. Results: A total of 331 cases of caesarean section were recorded. It appears that 13% (331/2552) of births. Overall, more than (83%) of caesarean sections were performed in an emergency. According to the Baltimore classification, we found 39.79% (109/274) of absolute indications and 60.21% (165/274) of non-absolute indications. The top five indications for caesarean sections in the structure were caesarean section history (13, 14%), fetopelvic/large fetus disproportion (7, 30%), narrowed pelvis and pre-eclampsia/eclampsia (18, 25%), and acute fetal distress (4, 74%). The maternal death rate is estimated at 0.30%. The stillbirth rate was estimated at 14.50%. These were fresh stillbirths (48/343). The indication for caesarean section most associated with stillbirth was retroplacental hematoma. Conclusion: The maternal prognosis was good, however we see a high stillbirth rate.

Keywords: Caesarean section, Indications, maternal death, stillbirth.

Citation: KONE Bokary Sidi *et al*. Cesarean Section: Epidemiologicaland Clinical Aspectsat at Gao Hospital in 2017 in Mali. Grn Int J Apl Med Sci, 2023 Nov-Dec 1(1): 1-6.

INTRODUCTION

Around 800 women die every day worldwide due to complications related to pregnancy, childbirth or postpartum. In 2017, 295,000 women died during or after pregnancy or childbirth [1].

According to the Demographic and Health Survey VI Edition (DHSM VI) 2018 [2]. The maternal mortality ratio is 325 maternal deaths per 100,000 live births. This rate has decreased considerably compared to the 2012 Mali Demographic Health Survey V Edition (EDS-M V), which is 368 maternal deaths per 100,000 NV [3] Direct causes of maternal death account for 3/4 of deaths, including haemorrhages, infections, pre-eclampsia - eclampsia, abortions and dystocia. These dystocias are an important cause of maternal and neonatal morbidity and mortality. The major component of dystocia is cerebropelvic disproportion, which together with presentation abnormalities account for the bulk of mechanical dystocia. These obstetric entities, which are accessible to prenatal consultation, are unfortunately often observed in our countries during labour. They then become serious obstetric emergencies for which caesarean section is often the radical solution

©The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0) that ensures authors retain full ownership of their published work. This license permits any non-commercial use, sharing, adaptation, distribution, and reproduction in any medium or format, as long as appropriate credit is given to the original authors and the source.

[1]. Several authors have reported that caesarean section rates are on the rise in several countries in Latin America and Asia, while they remain low and unchanged in most sub-Saharan African countries [4]. In the USA, from 2006-2008, a study in 19 hospitals in the country showed a caesarean section rate of 30.5% and half were due to dystocia with a dilation of less than 6 cm [5]. In sub-Saharan Africa, this rate is 6.2% with dystocia as the first indication (31%) [6]. In Mali, recent studies show an increase in caesarean section rates at the hospital level [7]. However, at the national level, they remain well below the 5% threshold, rising from 0.9% in 2005 to 2.51% in 2015. Mechanical dystocia alone accounted for 44.8% of the indications for caesarean sections. In such a context of high prevalence of dystocia with delayed access to UNOS, most women who escape death develop other more or less serious complications, including obstetric fistula. It is a very debilitating condition that affects the young woman and excludes her from society. It remains a public health problem in sub-Saharan Africa, including Mali [3; 8; 9]. In 2012, the political and security crisis led to a disorganization of the health system in the Gao region. Three years later, it became necessary to take stock of the indications for caesarean section, in particular the relative contributions of the different indications to the caesarean section rate as well as to the maternal-fetal prognosis, with a particular emphasis on dystocia.

OBJECTIVES

The aim was to evaluate the epidemio-clinical aspects of caesarean section at Gao Hospital.

MATERIALS AND METHODS

This was a prospective, descriptive, cross-sectional, analytical study from January 1 to December 31, 2017 in the obstetrics and gynaecology department of the Handadoumbo Moulaye Touré Hospital in Gao. Study population: The study included all women who underwent caesarean section during the study period. Inclusion criteria: All women who underwent caesarean section during the study period at Gao Hospital. Non-inclusion criteria: All women operated for uterine rupture; All women who have not been operated on in the department but who have been referred; All women who had a caesarean section outside the study period. Study variables: Several sociodemographic and clinical parameters were studied: age, marital status, occupation, level of education, provenance, parity, prenatal follow-up, indications for caesarean section, length of hospitalization, operative complications, maternal mortality, causes of death, morbidity and fetal mortality. Data collection: Data were collected from the following materials: The survey sheet; the maternity ward's delivery register; the operating room register; Obstetric records; the hospitalization register; The SONU Registry; The reference register; The Maternal Death Register. Data entry and analysis were performed using the Epi INFO software. The Data Analysis and Processing Plan: The data was entered into Epi Info, then exported for analysis by the SPSS software. The figures and graphs were created in Microsoft Excel 2013.

RESULTS

Epidemiological aspects

The investigation concerned the Gao region. During the twelve (12) months covered by the study, 2552 deliveries were recorded in the facility. The total number of caesarean sections performed was 331, i.e. a proportion of caesarean sections of 13% It appears that 99.76% (325/331) of these caesarean sections came from the area of the commune, while 0.24% (6/331) came from outside the area. Overall, more than seven out of ten cases of caesarean section came on their own (71.29%). Only (26.4%) of these parturients did not have a partogram. In our study, we find that 58.91% of women with caesarean section were between 20 and 34 years old with an average age of 24.5 and housewives accounted for more than 98.18% of cases. In 83% of cases, it was an emergency caesarean section (314/2552). These epidemiological aspects are summarized in Table 1.

Clinical aspects

Indications for Caesarean sections

The indication for caesarean section was absolute in 39.79% of cases (1097/274) and not absolute in 60.21% of cases (165/274). It was not possible to find the indication in the chart for 12 patients (04, 38%). Table 2 shows the indications for caesarean section according to the Baltimore classification. Overall, the top 5 indications for caesarean sections in the structure in order of frequency are: Abnormal presentation (15.33%); history of caesarean section (13.14%), retroplacental hematoma (13.14%), stationary dilation (10.58%), and pre-eclampsia (eclampsia (10.22%). However, there are significant variations in these indications depending on the mode of admission (Table 3). We produced a slightly biased estimate of indications for caesarean section according to the Robson classification (Table 4). However, it has the advantage of having an idea of the obstetric profile of pregnant women who have undergone caesarean section in our facilities. It appears that classes 1, 3 and 5 account for more than 7 out of 10 caesarean sections (74.48%), while classes 2 and 4, which concern pregnant women who benefit from induction or caesarean section before the onset of labour when the presentation is cephalic, represent only less than 11%. This contrasts with the high frequency of pelvic abnormalities and severe pre-eclampsia among the indications for caesarean section according to the Baltimore classification. Indeed, because of their frequency, pelvic abnormalities are the first indication for caesarean section among Robson's class 2, 4 and probably 5 pregnant women and the second indication

Copyright: © Author(s), 2023. Published by Greenfort International Journal of Applied Medical Science | This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

for classes 5 and 7 (Table 4). As for severe pre-eclampsia/eclampsia, it is the first indication for caesarean section for term nulliparous in spontaneous labor with cephalic presentation (class 1); as well as for cases of caesarean section for prematurity (class 10). Emergency caesarean sections accounted for 83% of procedures. With regard to the technical aspects of caesarean section practice, 264 caesarean sections were performed by general practitioners, i.e. 79.70%, and 64 caesarean sections by the specialist doctor, i.e. 20.30%. For the practiceof caesarean section according to the anaesthesia technique: 264 under spinal anesthesia among 331 or 79.76% and 67 under General Anesthesia among 331 or 20.24%. These clinical aspects are presented in Tables 2, 3, 4 and Figure 1.

Table 1: Epidemiological aspects of caesarean section studies carried out at Gao hospital from 1 January to 31 December 2017 in Mali.

Variables	Number	Percentage
Regions (n=331)		
Gao Circle	301	**11,80%**
Ansongo Circle	20	0,80%
Bourem Circle	04	0,16%
Timbuktu	06	0,24%
Residence		
Urban	325	**99,84 %**
Rural	06	0,16 %
Profession		
MenaGère	325	**98,18 %**
Pupil	03	0,91 %
Other	03	0,91%
Mode of admission (n=331)		
Evacuated	95	28,71%
Not evacuated	236	**71,29%**
Age (n=331)		
≤ 19 years old	81	24,47 %
20 - 34 years	195	**58,91%**
≥ 35 years old	55	16,61 %
Gestation (n=331)		
1	149	**45,01 %**
2 – 3	102	30,82%
4 – 6	80	24,17 %
7 – 12	00	00 %
Parity (n=331)		
0	102	30,82%
1 – 2	149	**45,01%**
3 – 6	80	24,17%
7 – 12	00	00%

Table 2: The mainindications according to the Baltimore classification of caesarean sections performed at the Gao hospital from 1 January to 31 December 2017 in Mali.

Directions	Number	Percentage
Absolute indications		
Pelvic anomaly	22	08,03%
DFP / Large Fetus	20	07,30%
Placenta previa	15	05,48%
Abnormal presentation	42	15,33%
Pre-Rupture Syndrome	10	03 ,65%
Non-absolute indications		
Stationary Expansion	29	10,58%
Cupping failure	2	0,73%
History of caesarean section	36	13,14%
History of obstetric fistula	1	0,36%
HRP	36	13,14%
Severe Pre-Eclampsia / Eclampsia	28	10,22%
Acute fetal distress	13	04,74%
Cord procidence	8	02,92%
Other	12	04,38%
Total	**274**	**100 %**

Copyright: © Author(s), 2023. Published by Greenfort International Journal of Applied Medical Science | This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Table 3: Profile of indications according to the mode of admission of caesarian women performed at the Gao hospital from 1 January to 31 December 2017 in Mali.

Directions	Evacuated	Not evacuated
Narrowed pelvis	1 (0,3%)	14 (4,22 %)
Deformed pelvis	0 (0,0 %)	4 (1,2 %)
Cupping failure	0 (0,0 %)	5 (1,51%)
DFP / Large Fetus	5 (1,51%)	15 (4,53 %)
PP	4 (1,2 %)	9 (2,71 %)
Transversal position	2 (0,6 %)	6 (1,81%)
Presentation of the forehead	4 (1,2 %)	0 (0,0 %)
Uterine rupture	07 (2,11%)	03 (0,9 %)
Stationary Expansion	11 (3,32 %)	0 (0,0%)
Extended work	5 (1,51 %)	2 (0,6 %)
Failed to trigger	0 (0,0 %)	8 (2,41%)
History of caesarean section	10 (3,03 %)	8 (2,41 %)
FO Background	0 (0,0 %)	1 (0,3 %)
HRP	23 (6,95 %)	49 (14,81 %)
Severe Preeclampsia / Eclampsia	7(2,11 %)	13 (3,92 %)
SFA	2 (0,6 %)	15 (4,53 %)
Procidence Cord	2 (0,6 %)	9 (2,71%)
Twin pregnancy	1 (0,3 %)	11(3,32 %)
Presentation of the headquarters	3 (0,9 %)	19 (5,74%)
Other	5 (1,51 %)	48 (14,50 %)
Total	**85 (25,68%)**	**246 (74,32%)**

Table 4: Robson's classification of caesarean section girls performed at Gao Hospital from 1 January to 31 December 2017 in Mali.

Class	Number	Frequency
Class 1: Singleton pregnancy with cephalic presentation in a full-term nulliparous woman with spontaneous labour	55	20,07%%
Class 2: Singleton pregnancy with cephalic presentation in a full-term nulliparous induction or caesarean section before onset of labour	15	7,30 %
Class 3: Singleton pregnancy with cephalic presentation in a full-term multipar, spontaneous labour	107	39,09 %
Class 4: Singleton pregnancy with cephalic presentation in a multiparous woman at term, induction or caesarean section before onset of labour	10	3,65 %
Class 5: History of caesarean section, Singleton pregnancy at term, Cephalic presentation	42	15,32 %
Class 6: Breech Presentation in a Nullipare	42	13,14 %
Class 7: Presentation of the seat in a multiparous car	20	5,48 %
Class 8: Multiple Pregnancies	7	2,55 %
Class 9: Position Anomalies	22	8,03 %
Class 10: Cephalic presentation prematurity	29	10,58 %
Total	**274**	**100 %**

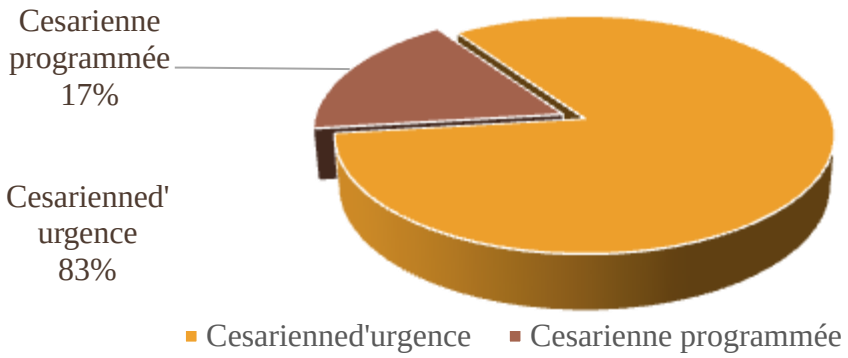

Figure 1: The different types of caesarean sections.

Copyright: © Author(s), 2023. Published by Greenfort International Journal of Applied Medical Science | This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Maternal-fetal prognosis

The maternal outcome could be specified for 331 cases of caesarean section (13%). Of these 331 caesarean sections, we identified 22 cases of post-caesarean complications, i.e. 6.7% of caesarean sections. The average length of hospital stay was 3 days. Wedeplored one case of maternal death after caesarean section, i.e. 0.30%. The 331 caesarean sections in our series resulted in the extraction of 343 newborns, 331 of which were from single pregnancies, 12 from twin pregnancies. We note 14.50% of neonatal deaths, i.e. 48 out of 343 newborns. Table 5 shows the elements of maternal-fetal prognosis.

Table 5: Postoperative complications of caesarean section patients performed at Gao Hospital from 1 January to 31 December 2017 in Mali.

Suites	Number	%
Simple	308	93%
Complicated	22	6,7%
Death	1	0,3%
Total	**331**	**100%**

DISCUSSION

Epidemiological aspects

We conducted a descriptive cross-sectional study covering 12 months. Our study highlighted significant shortcomings not only in the filling of obstetric records but also in their archiving, despite these difficulties and inadequacies: 331 caesarean sections were performed, i.e. a frequency of 13%, this percentage is lower than that of Abdoul Karim COULIBALY [10] which regained 28.40%. This is because most of the women came of their own accord. In our study, the 20-34 age group accounted for 58.91% of cases. This rate is lower than those of Sissoko H [11], Cissé B [12] and Togora M [1 3] which recovered 71%, 61.17% and 67.3 % respectively. This corresponds to the optimal age for fertility. Housewives accounted for 99.18% of cases. This rate is higher than those of Téguété I [17] and Togora M [1, 3], which have recovered to 86, 01% and 80% respectively. This situation could be explained by the fact that in Mali, more than 90% of women are out of school, so they mainly take care of households. In our study, 71.29% of our patients came on their own and 1.51% were evacuated. These results are different from those of TRAORE AF [16] and DIALLO CH [14] who recovered 25.62% and 71.87%. This explains the urgency of these caesarean sections.

Clinical aspects

Indications for caesarean section

At the Hangadoumbo Moulaye Touré Hospital in Gao, as in many other hospitals or university hospitals, the range of indications for caesarean sections has expanded considerably, leading to high rates of caesarean sections. In our department, caesarean section is very often performed to save first the mother and then the child from certain death. The labour test is the rule, caesarean section seems to be a last resort.

The analysis of the data makes it possible to report three main findings: The overall frequency of caesarean section in Gao hospital is about one in 10 deliveries (13%). A notorious inadequacy of prenatal consultations to detect the two main causes of complications in our study: Pelvic abnormalities, feto-pelvic / large fetus disproportion and transverse positions, all accessible at the 9th month prenatal consultation, indicate almost 4 out of 10 caesarean sections (30.66%). Unfortunately, in 8 out of 10 cases (83%), parturients with these indications are evacuated as a matter of urgency. The immediate prognosis is poor: these indications are associated with 1 in 10 stillbirths (11.43%). The mechanical dystocia associated with them is responsible for the unacceptable morbidity of obstetric fistula. Severe pre-eclampsia and its complications (eclampsia and HRP) cause almost one in 10 caesarean sections to occur (10, 22%). Despite the free availability of caesarean section kits to reduce the third delay, one in 4 emergency caesarean sections in hospital in 2017 was performed an hour or more after the caesarean section decision. We have grouped the indications under various entities namely. Pelvic abnormalities account for 22 cases, or 8.03% of our caesarean sections. This rate is lower than that of TEGUETE I. [17] which found 16.32%. This may be due to the high frequency of childbirth in adolescent girls who have not yet finished growing. In our study, presentation abnormalities were the first indications for caesarean section in our department during the study period. They accounted for 42 cases, or 15.33%. This rate is comparable to those of TEGUETE I [17] and DIALLO CH [14] which found 21.08% and 22.77 % respectively. During this study, prerupture was the extreme obstetric emergency for maternal rescue first with a rate of 3.65% which is lower than that of TEGUETE I [17] which found; 8.5%. It should no longer be an indication for a caesarean section, it is the consequence of unknown indications. Dynamic dystocia accounted for 29 cases or 10.58% of our caesarean sections. Our rate is higher than that put forward by KONATE M [15] which found 10.11%. In our study; Severe pre-eclampsia and its complications (eclampsia and HRP) indicate more than 64 cases, i.e. 23.36% of our caesarean sections. Our rate is higher than that put forward by KONATE M [15] which found 8.17%. This situation is encountered in patients who arrive in emergency with poor or no follow-up. Sometimes septic working conditions are to be taken into account. In our study, cord prolapse accounted for 8 cases, or 2.92% of our caesarean sections. Our rate is lower than those found by KONATE M [15] and DIALLO CH [14] who found 3.49% and 3.12% respectively. The procurrence of the beating cord is an

Copyright: © Author(s), 2023. Published by Greenfort International Journal of Applied Medical Science | This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

urgent indication for caesarean section for which the child is saved from certain death as far as possible.

Maternal-fetal prognosis

Maternal death accounted for a rate of 0.30% of our caesarean sections. Our rate is lower than those found by KONATE M [15] and DIALLO CH [14] who found 3.5% and 2.5% respectively. This is due to the prompt and effective management and monitoring of them during treatment. During the study period, we observed 22 cases of post-caesarean complications, or 6.7% of caesarean sections. Our rate is lower than those of DIALLO CH [14], KONATE M [15], which found 43.12% and 16.93% respectively. This is due to the rapid support. In our study, we recorded 38 cases of neonatal mortality, or 11.48%. Our rate is comparable to that put forward by DIALLO CH [14] which found 25%. In our study, 81.4% of our patients had a length of hospital stay of less than 5 days; 17.1% from 5 to 8 days and 1.5% from 21 days.

CONCLUSION

The maternal prognosis was good, however, we see a high stillbirth rate.

Conflict of interest: Authors declare that they have no conflict of interest.

BIBLIOGRAPHICAL REFERENCES

1. Emi Suzuki and Haruna Kasaiwase. United Nations Inter-Agency Group for Mortality Estimation 2017.
2. DNSI-CPS/MSSPA: Mali Demographic and Health Survey, EDSMVI Mali 2018. Mali Demographic and Health Survey 2012-2013. Rockville, Maryland, USA: CPS, INSTAT, INFO-STAT and ICF International.
3. Planning and Statistics Unit of the Ministry of Health (CPS/MS), National Directorate of Statistics and Information Technology of the Ministry of Economy, Industry and Trade (DNSI/MEIC) and Macro International Inc. 2007. Mali Demographic and Health Survey 2006. Calverton, Maryland, USA: CPS/DNSI and Macro International Inc.
4. Sepou A., Yanza M.C., Nguembi E., Ngbale R., Kouriah G. Kouabosso A., Nalim. N. Study of 299 cases of caesarean sections performed at the community hospital of Bangui (Central African Republic), Médecine d'Afrique Noire: 2000, 47 (1).
5. Zhang J., Troendle J., Reddy UM., Laughon SK, Branch D. W, Burkman R, Landy HJ, Hibbard JU., Haberman S, Ramirez MM., Bailit JL., Hoffman MK., Gregory KD., Gonzalez-Quintero VH., Kominiarek M, Learman LA., Hatjis CG., and Veldhuisen PV. For the Consortium on Safe Labor. Contemporary Cesarean Delivery Practice in the United States. Am J Obstet Gynecol. 2010 October; 203(4):326.E1–326.E10. doi:10.1016/j.ajog.2010.06.058
6. Chu K, Cortier H, Maldonado F, Mashant T, Ford N, et al. Cesarean Section Rates and Indications in Sub-Saharan Africa: A Multi-Country Study from Médecins sans Frontières. PLoS ONE 2012;7(9): e44484. doi:10.1371/journal.pone.0044484
7. Téguété I., Traoré Y., Mounkoro N., Dolo T, Dougnon A., Traoré A., Traoré M., Dolo A. Study of caesarean section in Mali. First Mother and Child Days of Ouagadougou (Burkina Faso), Ouagadougou, 04 – 06 December 2006.
8. Omer K, Afi NJ, Baba MC, Adamu M, Malami SA, Oyo-Ita A, Cockcroft A, Andersson N. Seeking evidence to support efforts to increase use of antenatal care: a cross-sectional study in two states of Nigeria. BMC Pregnancy Childbirth. 2014 Nov 20; 14:380. doi: 10.1186/s12884-014-0380-4.
9. Ministry of Health of Mali. National strategy for the prevention and management of obstetric fistula in Mali. "Zero cases of obstetric fistula". Ministry of Health, Bamako, January 2009; 73p.
10. Coulibaly A K. Caesarean section at the Koutiala Referral Health Centre: Feto-Maternal Indications and Prognosis . Thesis med Bamako, FMPOS 2007; 111p.
11. Sissoko H., Immediate post-caesarean section non-infectious complications at the CSREF, CV, thesis of Medicine, Bamako, Mali, 2006, M-247
12. Cissé B. Caesarean section in the maternity ward of Kayes hospital about 215 cases. Ph.D. in Medicine: Bamako 2001; 37 1990. Thèse Med.: Bamako, 1990, nº 37. 5
13. Togora M. Qualitative study of caesarean section at the CSRéf CV of the district of Bamako from 2000 to 2002 about 2883 cases. Thesis in medicine: Bamako, Mali2004 M-40
14. Diallo C.H. Contribution to the study of caesarean section. About a continuous series of 160 cases in the Department of Gynecology and Obstetrics of the Gabriel Touré Hospital from October 1, 1989 to September 30, 1989
15. KONATE M. The study of caesarean sections in the obstetrics and gynecology department over a period of 5 years at Gabriel Touré Hospital; Thesis in Medicine; 2001
16. TRAORE D. Study of BONC in the Koulikoro region, Thesis Medicine, 2003; N°03 M41
17. Tegueté I. Clinical and epidemiological study of caesarean section in the maternity ward of the G-point National Hospital from 1991 to 1993. About a case-control study of 1544 cases. Thèse med, Bamako 1996, No 17, 133P.

Copyright: © Author(s), 2023. Published by Greenfort International Journal of Applied Medical Science | This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.