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Caesarean Section in African Setting: Current Situation, Problematic and Qualitative Approaches at Laquintinie Hospital (Douala, Cameroon)

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Abstract

Background: Quality control of care aims to reduce or eliminate unnecessary care and to improve the quality of those who are useful both in their indication and in their implementation. **Objective:** We conducted this study to assess the rate of caesarean section, the rate of irrelevant indications, materno-foetal morbidity and mortality, biases in the management in order to suggest corrective approaches. **Methods:** It was a cross-sectional study conducted in the gynaeco-obstetrics department of the Laquintinie Hospital of Douala over a period of 4 months from January 1 to April 30, 2017. We included all pregnant women who had a caesarean section and who gave consent to our study as well as new-borns from these caesareans. We excluded caesarean deliveries from other health structures and referred to Laquintinie Hospital due to morbid operative follow-up. The variables collected were grouped under 3 main headings: socio-demographic data, clinical data and post-operative follow-up. **Results:** A total of 281 caesarean sections were performed out of a total of 967 deliveries; a caesarean section rate of 29.06% in 4 months. After data mining, 250 caesarean sections were included in the study because 31 cases of caesarean deliveries were unusable. Referred pregnancies accounted for 46.8% of the total population and the most common reason for referral was stationary labour (23% of cases). All caesareans were

performed by the gynaeco-obstetricians. Women who had caesarean deliveries were informed by the operator of the surgical procedure in 28.4% of cases and 27.6% were notified of the indication for surgery. The operative kit was present in 98% of cases. The operating room was available in 93% of cases. Caesareans were performed mostly in an emergency context (91.2%) with a median turnaround time of 214 minutes (3 h 56 mins). Mechanical dystocia was the major indication in our series (21.2%) and 29 indications were irrelevant (11.6%). Intraoperative complications occurred in 3.2% of cases. Overall maternal mortality (per- and post-operative) was 0.8% (2 cases). We recorded 15 neonatal deaths out of which 8 were still births. Regarding the postoperative period, 78% of the operated patients did not have a good immediate postoperative monitoring. The post-operative protocol was not respected in 17% of cases. Postoperative complications occurred in 21.6% of patients with first cause being infections (10.8% with 5.6% being parietal suppurations). **Conclusion:** The frequency of Caesarean sections at Laquintinie Hospital is above the World Health Organization's recommendations of 5% - 15%. There is a very big delay in the execution time of emergency caesareans, far above the international standards despite the quasi-availability of operating kits and the operating theatre. The state of the premises reveals a sub-workforce creating work overload and therefore a demotivation of the staff leading to insufficient communication between the operator and operated, a lack of post-operative follow-up and significant neonatal morbidity and mortality. Hence the need to initiate a staff satisfaction survey.

Keywords

Caesarean Section, Practical, Laquintinie, Cameroon

1. Introduction

To address maternal mortality and neonatal complications related to vaginal delivery, caesarean section has become an increasingly popular surgical procedure around the world. 24.1% of births by caesarean section in the United States; 14.06% of births in Djibo, Burkina Faso in 2014; 18.64% and 23.73% respectively at the central hospital and the General Hospital Yaoundein Cameroon in 2012. These figures thus appear far from the 5% - 15% birth rate recommended by WHO [1] [2].

Nevertheless, this intervention is associated with a risk of materno-foetal morbidity and mortality. In industrialized countries, maternal mortality rate related to caesarean section from 0.07% to 0.34% has been reported in the literature [3]. In Africa, particularly in Mali and Cameroon, morbidity rates of 22.7% and 16.95% respectively are reported [1] [4].

The outbreak of caesareans that the world knows in recent decades challenges us on the problem of this intervention and the evaluation of its practice.

The evaluation of medical practices is a set of processes aimed at helping the

health professional to make the best diagnostic and therapeutic choice for the patient and the community. This evaluation appreciates the therapeutic results, the sequalae of the treatment as well as the satisfaction of the patient at the end of the hospital stay.

This quality control of care aims to reduce or eliminate unnecessary care and improve the quality of necessary care both in its indication and implementation.

Quality caesarean section is defined as an intervention that benefits all pregnant women who really need it with minimal risk for mother and child and has an affordable cost for the health system.

The caesarean section rate is a good indicator of the quality process of obstetric care. Too low, it reflects poor coverage in obstetric care; too high, it is suggestive of a deleterious practice with questionable indications. The WHO standard is 5% to 15% [1] [5].

The maternal mortality rate in Cameroon is 782 deaths per 100,000 live births; this rate is indicative of a lack of organization or low coverage of obstetric care and the quality of these. In Cameroon a woman dies every 2 hours giving birth, that is 12 each day [6]. In 2015, the same report estimated neonatal mortality at 596 deaths per 100,000 births in Cameroon [7].

Many countries around the world in general, and in Africa in particular, have realized the need to evaluate the quality of care to improve it. Regarding the practice of caesarean section, there are studies done in Senegal in 1996, in Burkina Faso in 2005 [8] [9]. In Cameroon, few studies in the sense of assessing the quality of care in general and obstetrics, in particular, are conducted. This scarcity of study and the high morbidity and mortality in obstetrics in our country have led us to look at a decisive element of maternal morbidity and mortality, notably caesarean section in order to evaluate its practice at Laquintinie Hospital in Douala which falls under the central level of Cameroon's health pyramid.

2. Methods

2.1. Type of Study

This was a cross-sectional descriptive study that took place from January 1, 2017 to April 30, 2017 (*i.e.*, 4 months) in the post-operative section at the maternity of the laquintinie hospital in Douala, Cameroon.

The Laquintinie Hospital is a university-hospital setting that records 2900 births a year, of which nearly one-third (950) by caesarean section for 06 gynaecologists. The obstetrics and gynaecology department has a capacity of 80 beds and a fill rate of 80%. The shifts at the maternity clinic are attended for a period of 24 hours (8:00 to 8:00) for the gynaecologist assisted by a rotating team of paramedics by sequential period (the morning from 8 am to 5 pm and the night from 5 pm to 8 am) and consisting of a nurse anaesthetist, two nurses in the operating room, 3 nurses midwives and 3 general nurses, the posto-perative section has a capacity of 36 beds for two nurses during day and night shifts. According to an empirical ratio of 1 paramedical guard for 8 beds, the ratio of operative

follow-up in the department of obstetrics and gynaecology of the laquintinie hospital is 1 nurse for 18 beds. The work overload and difficulties faced are therefore normal. The provision of running water is subject to multiple cuts and refuelling is not always non-contaminating. The sterilization chain is defective and prone to multiple breakdowns.

2.2. Study Population

We recruited women who underwent caesarean deliveries at Laquintinie hospital in Douala who consented to our study, as well as new-borns from these caesareans. Sampling was consecutive, non-exhaustive. We excluded caesarean deliveries from other health structures and referred to Laquintinie Hospital due to morbid operative follow-up.

2.3. Materials

The information was collected by direct interrogation using a pre-tested form; but also, by examining their medical records and operating room registers. An informed consent form validated by the ethics committee of the University of Douala was read beforehand to the members with their signature. The variables selected for the study were socio-demographic (age, marital status, occupation, residence and religion) the surgical indications, the conditions of management, the duration of the interventions, the post-operative follow-up and complications, the maternal and neonatal deaths. Caesareans were divided into 5 categories:

Absolute emergencies: that is, the life of the mother and/or the fet we is in immediate danger if the caesarean section is not performed (uterine rupture or uterine rupture syndrome, placenta praevia covering haemorrhage, cord prolapse).

Mandatory: absence of intervention exposing to maternal death and/or serious maternal sequelae (cephalo-pelvic disproportion, vicious presentation, narrowed pelvis).

Absolute need: corresponds to pathologies associated with pregnancy or abnormalities of delivery (hypertensive pathology, dynamic dystocia).

Caesarean section of caution: corresponds to situations for which intervention is not necessary; vaginal delivery is possible, but the surgical procedure is considered useful to improve the functional prognosis of the mother as well as a well-being to the new-born (fresh single uterine scar).

Non-relevant indications: dynamic dystocia without previous correction, limited pelvis without test of labour.

The analysis of this data was carried out with SPSS software (Statistical Package for Social Sciences) version 17 and Microsoft Excel 2010.

3. Results

During our 4-month study, we recorded 967 deliveries (all routes included) in-

cluding 281 caesarean sections (29.06%). However, only 250 (documented) caesarean sections were included (31 excluded due to lack of exploitable information). The adherents were mostly between 20 - 35 years of age, unemployed, married, living in disadvantaged neighbour-hoods and of Christian religion (Table 1) there were 228 (91.2%) caesareans performed in an emergency setting. About half of these emergency caesarean sections were referred cases: 117 cases (46.8%). The predominant reason for the referral was stationary labour: 23.9% (28 cases) (Table 2) and 11.6% (29 cases) of the indications were irrelevant (Table 3). The major surgical indication of our series was mechanical dystocia 53 cases (21.2%) (Table 3).

Of our series of 250 caesareans, 28.4% were informed of the operative procedure (71 cases) and 27.1% (69 cases) were able to respond on the indication of their caesarean section (Table 4).

Of the 228 emergency Caesarean sections performed, 95.6% (218 cases) were performed greater than 1 hour after decision making (Figure 1). The median turnaround time was 214 minutes (approximately 3 h 56 minutes), with a minimum of 20 minutes and a maximum of 2104 minutes (approximately 35 hours).

The duration of the intervention was not specified in most files. However, out of 143 cases in this variable, 73.42% (105 cases) had an intervention duration of less than 60 minutes (Table 4).

All these caesareans were performed by gynaecologists-obstetricians.

Table 1. Distribution of the pregnant women with respect to socio-demographic characteristics.

Variables	Categories	Frequency (N = 250)	Percentage (%)
Age	≤19 years	10	4
	20 - 35 years	190	76
	>35 years	50	20
Occupation	Unemployed	83	33
	Self-employed	65	26
	Pupil/student	55	22
	Private sector	32	13
	Public sector	15	6
Marital status	Married	157	62.8
	Single	93	37.2
Residence	Residential neighbour	92	37
	hood	158	63
	Un-favoured neighbourhood		
Religion	Christian	235	94
	Muslim	15	6

Table 2. Distribution with respect to reason for admission of the referred pregnant women.

Reason for admission	Frequency (N = 117)	Percentage (%)
Stationary labour	28	23.9
Severe pre-eclampsia	15	12.8
AFD[1]	14	11.9
PRM[2]	12	10.25
CPD[3]	11	9.40
LPP[4] similar to UC[5]	10	8.54
Eclampsia	8	6.83
Cord prolapse	6	5.12
Uterine scar	5	4.27
Multi-scared uterus	2	1.7
Bleeding	2	1.7
Post-term	2	1.7
Abnormal presentation	2	1.7

AFD[1]: Acute fœtal distress, PRM[2]: Prolonged rupture of membranes, CPD[3]: Cephalo-pelvic disproportion, UC[4]: Uterine contractions, LPP[5]: Lombo-pelvic pain.

Table 3. Distribution of types of caesarean indications.

Type of caesarean	Frequency (N = 250)	Percentage (%)
1) Absolute emergencies		
- AFD[1]	35	14
- PPCH[2]	14	5.6
- Cord prolapse	7	2.8
- Pre-rupture syndrome	6	2.4
2) Mandatory		
- Mechanical distocia	53	21.2
- Repeated indication	23	9.2
3) Absolute need		
- Severe pre-eclampsia	15	6
- Eclampsia	11	4.4
- Stationnary Labou	12	4.8
- RPH[3]	4	1.6
4) Caesarean of caution		
- Fresh single uterine scar	41	16.4
5) Non-relevant indications		
- PRM[4]	18	7.2
- Suspicion of macrosomia	6	2.4
- Post term	3	1.2
- Chorio-amnionitis	2	0.8

AFD[1]: Acute foetal distress, PPCH[2]: Placenta praevia covering haemorrhage, RPH[3]: Retro-placental haemorrhage, PRM[4]: Prolonged rupture of membranes.

Table 4. Conditions of care.

Variables	Frequency (N = 250)	Percentage (%)
Availability of kits	245	98
Availability of theatre	333	93
Informed of the procedure	71	28.4
Informed of the indication	69	27.6
Emergency caesarean	228	91.2
Planned caesarean	22	8.8
General anaesthesia	37	15
Spinal anaesthesia	213	85
Duration of intervention		
<30 mins	25	17.48
30 mins - 1 hour	105	73.42
1 hour - 2 hours	12	8.39
>2 hours	1	0.70
Post-op monitoring		
Every 30 mins for 2 hours		
First hours		
YES	55	22
NO	195	78
Respect of the surgical protocol		
YES	205	82
NO	45	18

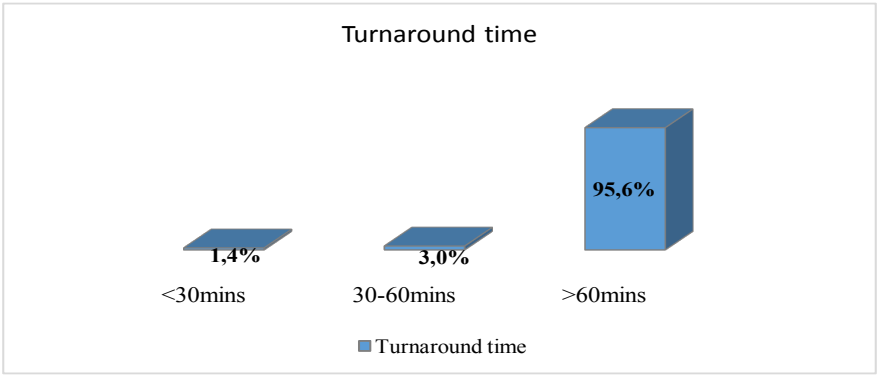

Figure 1. Turnaround time for the surgical action.

Two types of anaesthesia were performed at Laquintinie Hospital maternity ward: general anaesthesia and spinal anaesthesia with a predominance of spinal anaesthesia (85% of cases) (Table 4).

During the study period, we recorded intraoperative haemorrhages by a percentage three times higher (1.2%) (Table 5) than intraoperative maternal death due to anaesthetic causes (0.4% of caesarean section) (Table 6).

Table 5. Per-operative complications.

Variables	Frequency (N = 250)	Percentage (%)
1) Complications due to anaesthesia		
- Vasoplegia	1	0.4
- Cardio-respiratory arrest	1	0.4
2) Per-operative haemorrhage	3	1.2
3) Bladder injury	1	0.4
4) Hematoma of the large ligament	1	0.4

Table 6. Materno-fœtal mortality.

Variables	Frequency (N = 250)	Percentage (%)
Maternal Death	1	0,4
Still birth	8	3,2
Transfers to neonatology	26	10,4
Deaths in neonatology	7	2,8
Total neonatal deaths	15	6
Live new-borns who left the hospital	235	94

We recorded 8 stillbirths (3.2%), 216 new-borns (86.4%) had a satisfactory APGAR score at the first minute and 26 neonatal transfers (10.4%) for apparent death. At discharge from the hospital, 235 new-borns (94%) were alive compared to 7 neonatal deaths (2.8%). Giving a total of 15 neonatal deaths (6%).

Only 55 (22%) patients were monitored every 30 minutes for the first 2 hours.

The postoperative protocol was not respected in 18% of cases.

The follow-up was enamelled with 54 cases (21.6%) of complications with a predominance of infectious complications: 27 cases (10.8% of the general study population) (**Figure 2**).

The Limits of Our Study

This study was a punctual and essentially descriptive look at the practice of caesarean section at the laquintinie hospital. We did not do statistical analyses with confusion checks by logistic regressions in this study. For this purpose, we plan to carry out further analytical studies in an exclusive qualitative approach. We discussed our results according to the variables retained while discriminating those which did not seem to us reliable; because poor record keeping and inconsistent reporting of some data prejudged bias in analysis and relevance.

4. Discussion

The optimal age range for human procreation is 20 - 30. The age of caesarean deliveries ranged between 15 and 41 years with an average of 29.01 ± 5.861 years. The majority age group was 20 - 35 years old (**Table 1**). These data are similar to

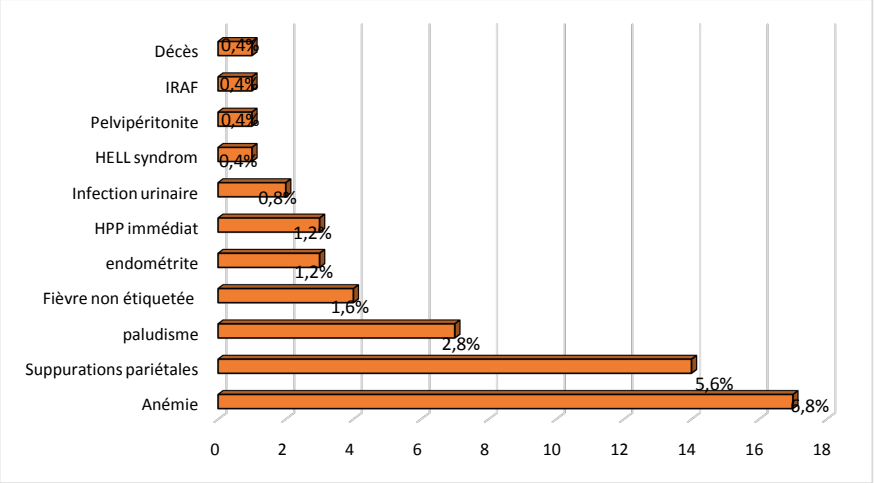

Figure 2. Summary of post-operative complications.

those reported by Togora *et al.*; Diawara *et al.* in Mali [10] [11] and corroborate the optimal range for procreation.

The caesarean section rate in our series was 29.06% of deliveries. This rate is close to that of Trabelsi *et al.* (28.71%) in Tunisia in 2005; higher than the WHO recommended rate of 5% - 15%, also above the 18.64% and 23.73% reported by Kemfang *et al.* respectively at Yaoundé Central Hospital (HCY) and Yaoundé General Hospital (HGY) in 2012, as well as the 17.9% found by Mbongo *et al.* in Brazzaville [2] [4] [12] [13].

The laquintinie hospital is located at the central level (2nd category) of the health pyramid of Cameroon with a buffer mission between the district hospitals and the 1st category hospitals. As such it receives all emergencies of peripheral hospitals, which explains this rate above the WHO standards. In the illustration, the rate of 46.8% of pregnant referred in our series. In addition, the objective of a reference structure is qualitative and not accounting. For this purpose, the WHO standard seems more indicative than operational here.

The city of Douala which hosts the Laquintinie Hospital is demographically first in Cameroon with a gross domestic product (G.D.P) of 70%. This data, in our opinion, explains the difference with the studies of Kemfang *et al.*, however, falling within the same national area and the same health stratum.

In terms of communication, 28.4% (71 cases) of women who underwent caesarean deliveries were informed by the operator of the surgical procedure and 27.1% (69 cases) were notified of the indication for surgery. These results converge with those of Some Der *et al.* at CHU (Centre Hospitalier et Universitaire) in Bobo-Dioulasso in 2005, which revealed that 38.5% of patients were informed about the procedure and diagnosis [9]; But inferior to those of Muthukumarappan *et al.* who reported that 43% of the patients had received caesarean section counselling [14]. The painfulness of the work as reported in the state of the place seems to justify this failure. Because the gynaecologist on duty has to manage gynaecological and obstetric emergencies but also to give advice and conduct in

the units while ensuring continuity of care.

In our series, 95.6% of caesareans were performed more than 1 hour after indication (**Figure 2**). The average length of the turnaround time was 214 minutes, about 3 h 56 minutes. These results are superimposable to those of Mbongo *et al.* who reported an average delay of 240 minutes [15], but well above the 35 minutes of the Dembele *et al.* (Mali) study, to the 1 h 12 minutes found by Some Der *et al.* at the CHU Bobo-Dioulasso (Burkina Faso) in 2005 [3] [9] they are also well above the norms and recommendations of American and Canadian learned societies (RCOG, American College of Obstetricians and Gynaecologists, National consensus conference in Canada and United kingdom confidential inquiry) that advocate foetal extraction within 30 minutes after decision in emergency caesarean operation [16] [17].

When analysing our data, we put to the credit of these great differences the endogenous and exogenous causes.

The endogenous causes are of procedural nature: the long queues in front of the cash office, especially at night because of the small number of cashiers on duty; anything that affects the assignment of kits and other consumables. The presence of a single anaesthetist staff for all surgical emergencies of the hospital further extends these care times during calls.

Exogenous causes are often dependent on the financial difficulties of the families of the respondents. Cameroon does not have a community health insurance system. The occupational profile (mostly unemployed) of our caesarean deliveries corroborates our explanations. Because 33% of our series was without income and 26% had uncertain income because working in the informal sector. As the surgical act is sociologically feared in our communities, it is legion that the family consults for this purpose before any passage in the operating room. These difficulties are also reported by Some Der *et al.* in Burkina Faso and Mbongo *et al.* in Brazzaville [9] [15].

The operative kit was present in 98% of cases and the operating theatre was available in a proportion of 93% of cases.

The effective presence of the surgical team associated with the quasi availability of the kit and the operating theatre constitutes pertinent points to elucidate considering the great delay of action and suggests a demotivation of the staff due to the work overload. That which in our opinion is the whole problem to solve are the long delays of action. Correcting the queues, favouring access to consumables through a non-financial emergency procedure certainly does not improve this variable without a survey of satisfaction of the practitioners and the reinforcement of the human resources in order to reduce the load of the work.

Mechanical dystocia (21.2%), fresh uterine scar (16.4%) and acute foetal distress (AFD) (14%) made up the 3 major groups of indications (**Table 3**). These findings corroborate the data of Dembele and Breda [3] [18]. The first indication of our study is similar to that reported by Diarra *et al.* in Mali in 2005 [19]. These results contrast with the studies of Aziz *et al.* in Pakistan and Bangalet *et al.* in India where the uterine scar was the first indication [20] [21]. The presence

of the fresh uterine scar as a second indication (16.4%) attests to the caution of the obstetricians in our study given the high risk of uterine rupture in this indication and motivated by the absence of a tocograph in our department. This is also the second indication reported by Tonyi *et al.* in Limbé and Buea in Cameroon [22]. The absence of a suitable technical platform for the definite diagnosis of AFD with the measurement of scalp pH forces obstetricians to make this diagnosis solely on the basis of variation of the foetal heartbeat and/or the abnormal colour of the amniotic fluid, justifying the presence of the AFD as 3rd indication of caesarean section in our study.

Emergency caesarean section was 91.2% (**Table 4**) These results are similar to those of Nana *et al.* 90.2% and 86.7% in two hospitals in the far north of Cameroon [23]. This is because all references were in an emergency context.

All caesareans were performed by the gynaecologist-obstetricians. In contrast to the study of Kemfang *et al.* in 2012 that revealed that caesareans were performed in 71% of cases at the Central Hospital Yaounde (CHY) by residents in gynaecology [1]. Unlike the obstetrics and gynaecology department of Laquintinie hospital which does not count any resident.

Intraoperative complications accounted for 3.2% of the total study population (1.2% related to anaesthesia with cardiopulmonary arrest) (**Table 5**). These findings are superior to those of Diarra *et al.* in Bamako who found 0% [19].

Of the 250 new-borns registered, 8 (3.1%) were stillbirths, 26 (10.4%) were in a state of apparent death and 7 died in neonatology. At discharge from the hospital, 235 new-borns were alive, *i.e.* a total of 15 (6%) neonatal deaths (**Table 6**).

Our neonatal morbidity rate of 10.4% appears to be better despite the delays in care mentioned above and thus confirms the quality of the neonatal care received. Because our rate is lower than that of Togora in Bamako 21.7% [10] also lower than those of Tanyi *et al.* in Limbe and Buea in Cameroon who found 26% of new-borns with an unsatisfactory condition [22]. Their results correlate with those of Forsah and Tebeu [24] [25].

Unlike our practice (general anaesthesia 15%), the study by Tanyi *et al.* mentions the almost frequent use of general anaesthesia (G.A). General anaesthesia has been reported in the literature as being associated with unsatisfactory neonatal outcomes [26] [27] [28]. There is also a lack of intensive neonatal care, which was decried in their study.

In our study, 21.6% of caesarean sections were complicated postoperatively (**Figure 2**). This rate is similar to the 20.11% found by Kemfang *et al.* at the CHY in 2012, at 21.4% by Hager et al in Norway in 2004 and 22.7% of Mariko *et al.* in 2007 in Mali [1] [4] [28]. However, our results are superior to the 7.69% found at the Yaounde General Hospital (YGH) by Kemfang *et al.*, to those of Diarra *et al.* in Bamako 12% and 5.2% found by Dembele *et al.* in Mali [1] [3] [19]. Infectious complications were the most frequent, representing 10.8% of the total population (**Figure 2**). This rate is comparable to the 9.04% reported by Kemfang *et al.* at HCY, 12.6% of Shrestha in Nepal and 10% of Cissé in Senegal [1] [29] [30]. These results are in the range found in thein the Moroccan and Gui-

nean literature 6.7% and 29.7% respectively [31] [32].

As noted by Kemfang at CHY and Mariko at Ignace Dee Hospital in Conakry, Guinea, rupture of perioperative asepsis is a determining factor in the occurrence of infectious complications. The difficulties of refuelling in running water and the recurring failures of the sterilization chain as mentioned in the inventory, are in our opinion determinants to the occurrence of these infections aided by the non-compliance with the postoperative therapeutic protocols in 17% for defaults in financial resources. Parietal suppuration (5.6%) is at the forefront of infectious complications. This rate is not far from that found by Diarra *et al.* in Bamako 4% [19]. But higher than those of Kemfang at CHY and YGH which were respectively 1.74% and 1.70%.

Death was deplored immediately postoperatively in a 24-year-old pauciparous operated for eclampsia on a scarred uterus. In our study, overall maternal mortality (per and postoperative) was 0.8% (2 deaths) (**Table 6** and **Figure 2**) contrasting with the absence of death in the Kemfang study at CHY and YGH [1]. But this rate is lower than that of Cissé in Senegal 1.4% and 3.45% in the Guinean study [30] [32]. The lower rate of maternal mortality in our study compared to theirs could be explained by the size of our sample lower than theirs.

5. Conclusion

Caesarean section at Laquintinie hospital is twice as high as WHO standards. Nearly half of the pregnant women who underwent caesarean sections were referred emergency cases. The average time of execution of emergency caesareans was 3 h 56 minutes far above the 30-minute norms despite the availability of the operating kit and the operating theatre. The health-care personnel are in sufficient for post-operative care; this state creates work overload and demotivation of unmotivated personnel; which explains insufficient postoperative monitoring. Hence the need to initiate a study of staff satisfaction. We equally observe significant neonatal mortality.

6. What Is Known

Caesarean section supplements the vaginal way, thereby ensuring maternal and foetal well-being.

Caesarean section carries a risk of maternal and foetal morbidity and mortality.

We are witnessing a surge of caesareans in the world.

What our study contributes.

It notes a significant rate of irrelevant indications.

It reveals unsafe practice and suggests corrective approaches including a staff satisfaction survey.

Contributions of the Authors

Essome: collecting manuscript writing data and co-direction of the study, Mve,

Engbang, Boten, Essiben, Tocki, Fumane, read and edited the manuscript, Mboudou editorial supervision, manuscript correction and direction of the manuscript study.

Conflicts of Interest

The authors declare no conflict of interest.

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