

Review Article

Emergency Caesarean Section at the Mother and Child Center in Zinder: Indications and Epidemiological Profile of Parturients

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Abstract: Caesarean section is a surgical operation consisting of extracting the fetus by incising the abdominal wall and uterus. It is a high-risk act for both the mother and the fetus, it is increasingly performed and often in an emergency. We present the indications, epidemiological profile and fetomaternal prognosis of the emergency caesarean section. This is a prospective, descriptive and analytical study covering a period of one month (June 1 to 30, 2021). The study took place at the Mother and Child Health Center in the Zinder region. Included in the sample were any parturient admitted directly or after evacuation of other emergency caesarean section sanitary facilities and excluded those received for any indication other than emergency caesarean section. The variables studied were epidemiological data, caesarean section indication, ASA class, anesthetic technique, admission - fetal extraction time, operating time, fetal-maternal complications, maternal prognosis. The data collection was made from the patient record, the operating room register and a questionnaire sent to the patient at admission. Fifty-five (55) files were selected and the average age of the parturients was 28 years with extremes of 15 years and 40 years. The 26 to 30 year olds were the most affected (27.27%). Most were of class ASA I (65.45%). Primigests accounted for 20% of cases, 2nd and 3rd gestures constituted 40% and multipares 20% of cases. Spinal anesthesia was the most practiced anesthetic technique 70.90% versus 18.18% for general anesthesia. Fetal suffering was the most common operating indication with 14.54% of cases followed by vicious presentation (siege, fetopelvic disproportion) in 10.90% and 09.09% of cases, respectively. The average time induction anesthetic fetal extraction was three (3) minutes and that of the procedure was forty (40) minutes. The surgical suites were simple both maternal and for the sixty newborns.

Keywords: Caesarean section, emergency, indication, forecast.

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INTRODUCTION

Caesarean section is thought to come from the Latin "caedere" which means "cut or prune" and simple sufficient explicit as to the delivery technique it covers [17].

Cesarean section is the surgical removal of the fetus by incising the abdominal wall and uterus. It is therefore a surgical operation consisting of incising the pregnant uterus through the abdominal wall to extract the child. It is an increasingly common method of childbirth, and its use is being widely intensified. It is a high-risk mode of birth, especially in an emergency

context. Emergency cesarean section is constantly increasing in the world and the rate has risen from 12% in 1970 to 20% to 25% today [17].

Emergency cesarean section varies according to the care structures and the risk factors of the parturient. Thus, in France in 1997, 40% of cesarean sections were performed as emergencies, in Germany in 1997 there were 11500 cesarean sections performed as emergencies and in Great Britain in 2000, 60% of cesarean sections were performed as emergencies [12].

The indications for caesarean sections are variable, whether maternal or fetal. In the Zinder

region, where the mother and child health center is located, some patients still give birth without medical assistance. This situation is not without maternal and/or fetal consequences. Thus, in order to reduce maternal and infant mortality in the region, a health center with an operating room has been built to deal with gynecological-obstetrical emergencies. When was there no indications for emergency cesarean section and fetomaternal prognosis at the mother and child health center in the Zinder region?

General objective

The main objective was to evaluate the maternal-fetal outcome during emergency cesarean section in order to better identify the problems posed by anesthesia for this field in this center.

Specific Objectives

- To identify the main indications for emergency cesarean section.
- Identify the epidemiologic profile of parturients.
- To assess the fetomaternal prognosis.

Patients and method: This is a prospective, descriptive, and analytical study from June 1 to June 30, 2021, a one-month period.

The target population consisted of all patients admitted to the maternal and child health center in the Zinder region during the study period.

Included were parturients admitted directly or after evacuation from other health facilities who were candidates for an emergency cesarean section.

Patients admitted to the center for any indication other than emergency cesarean section were excluded.

The study took place at the maternal and child health center in the Zinder region. It is the main referral center in the region for gynecology and obstetrics. It has an emergency department, hospitalization, intensive care, neonatology, an operating room, and a laboratory for analysis.

The variables studied were epidemiological data (age, parity, prenatal consultation), antecedents, indications for cesarean section, type of anesthesia, various action delays (incision-extraction, operating time), complications and maternal-fetal outcome. The data were collected from a survey form sent to the parturients, the parturient file, the admission register and the operating room register.

RESULTS

During the study period, fifty-five (55) emergency cesarean sections were performed on 130 cesareanized parturients, a frequency of 42%. The average age of the patients was 28 years with extremes of 15 years and 40 years.

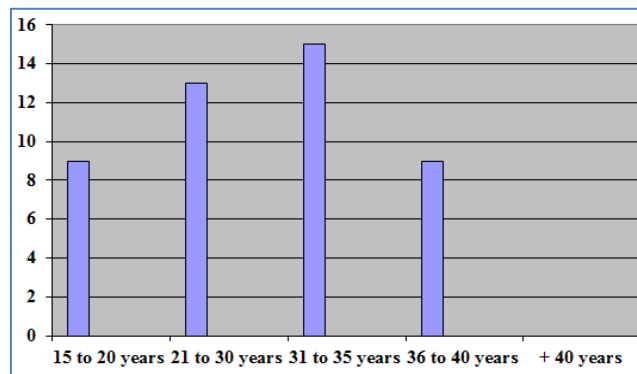


Fig-1: Distribution of parturients by age

The 26 to 30 year old age group was the most affected with 27.27% of cases followed by the 21 to 25 year old age group with 23.63% of cases. The 15 to 20 years old represented 16.36% of the cases.

The indication for 36 to 40 years old represented 07.27% and for 09.09% of patients the age was unclear.

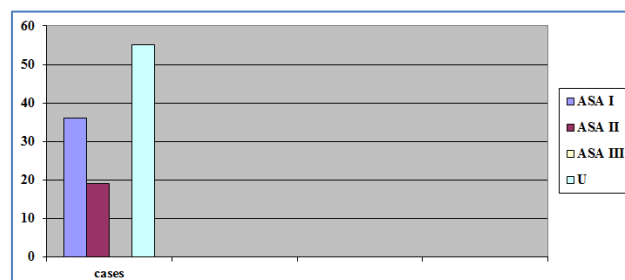


Fig-2: ASA class of parturients

More than half (65.45%) of the operated women were of ASA class I U

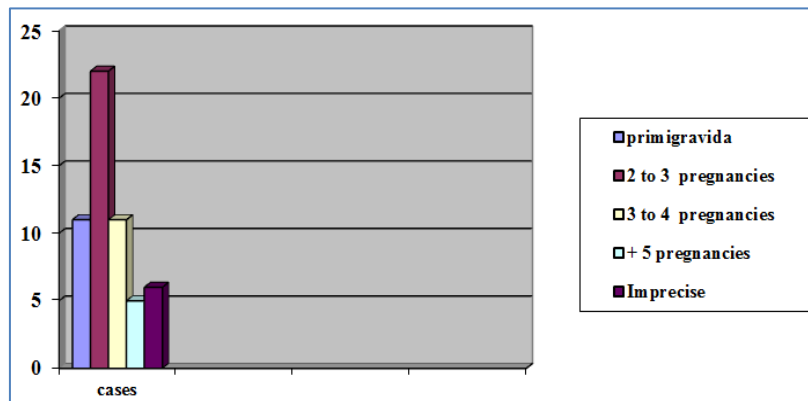


Fig-3: Pregnancy - parity

We recorded more parturients of the second and third gestation (40%), that is 22 cases. The primigravida represented 20% (11 cases), the

multiparas (4th and 5th gestation) 20% and the great multiparas 09,09% (05 cases). Six parturients (10.90%) did not specify their gestational age.

Table-1: Anesthesia technique used

Technical	Number of cases	Percentage
GA + OTI	10	18,18 %
Spinal anesthésie	39	70,90 %
Spinal with sedation	06	10,90 %

Spinal anaesthesia was the most common anaesthetic technique used, 70.90% of cases. General anesthesia with orotracheal intubation was used in

18.18% of parturients. Sedation during spinal anesthesia was used in 10.90% of cases.

Table-2: Indications for emergency cesarean section at the CSME in the Zinder region

Indications	Nombre de cas	Percentage
Twin pregnancies	03	05,45 %
Seat	06	10,90 %
Face	01	1,81 %
FP disproportion	06	10,90 %
Fetal distress	08	14,54 %
Transverse	01	1,81 %
Rupture utérine	03	5,45 %
RPM	03	5,45%
Bassin limite	05	09,09 %
Dystocie	2	3,63 %
Utérus	4	7,27 %
Pré rupture	02	3,63 %
Pré éclampsie	02	3,63 %
Macrosomie	04	7,27 %
Autres	04	7,27 %

Fetal distress was the main indication with 14.54%. Mechanical dystocia, namely, fetopelvic disproportion, borderline pelvis and vicious presentations occupied the second place with respectively 10.90% and 09.09% of cases. The average time for anesthetic induction and surgical incision was

five (5) minutes and that of the extraction incision was three (3) minutes. The average duration of the operation was forty (40) minutes. On the whole, the immediate and medium-term postoperative follow-up was simple. No case of maternal-fetal death was recorded.

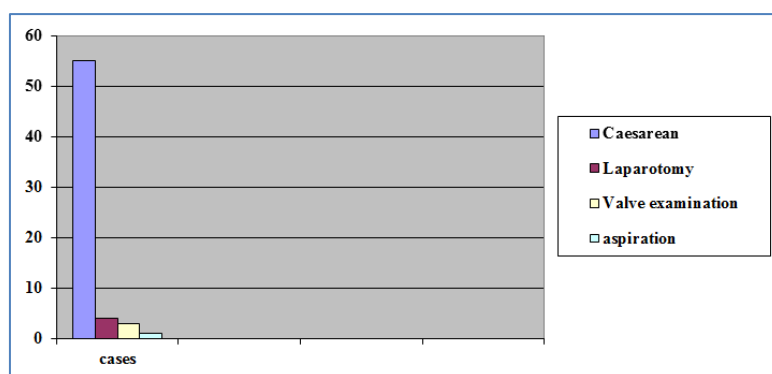


Table-3: Activities performed in the operating room at the CSME during the study.

DISCUSSION

At the Mother and Child Health Center (MCHC) in the Zinder region, emergency cesarean sections and deliveries were the main activities. Caesarean section constituted 87% of the activities and emergency caesarean section 42%.

Our figure (87% of activities were emergency cesarean sections) was higher than those of Mbengo [13] in Congo with 67.6% and Beyeba [2] in Mali with 80%. It was close to that of the Cocody team in Abidjan [14] with a frequency of 85%. The explanation for our rate lies in the density of the population and the uniqueness in the region of the cesarean section management center.

The average age of the parturients was 28 years with extremes of 15 and 40 years. These data were close to those of Peté [14] with 29.1 years. On the other hand, the Brazzaville team [11,13] recorded an average age of 26 years.

These results showed that emergency cesarean section was the prerogative of young women on the one hand, but on the other hand the early age of maternity in the region. The age group of 26 to 30 years represented 27.27% of our sample.

The second and third gestures represented 40% and the first gestures 20%. This finding was found in the work of Peté Yanick [14] with an average gestational age of 2.9 and an average parity of 2.1. This was explained by the high fertility rate in the study area, with a national rate of about seven children per woman. The cesareans were of ASA I U class in 65.45% of cases. On the other hand, the Abidjan team [14] recorded 07.4% of ASA I U. The difference between these two studies was in the young age of our patients. In fact, we recorded young parturients without any particular history and therefore without any defects.

Spinal anesthesia was the technique of choice with 70.90% versus 18.18% of general anesthesia with orotracheal intubation. This predominance of spinal anaesthesia has been found in the work of several

authors [1, 3, 8, 11, 12]. The same observation was made by Beyesa [2] in Bamako and Mbongo [13] in Congo Brazza. The popularity of spinal anaesthesia was justified by the simplicity of its technique, its anaesthetic safety and its low cost. But also by the indications for caesarean section (mechanical and dynamic dystocia, fetal suffering) thus leaving a preparation time for the anaesthetist.

The main indication for cesarean section was fetal distress in 14.54% followed by breech presentation and borderline pelvis in 10.90% and 09.09% respectively. The Congolese [11,13], Malian [2] and Ivorian [14] teams had made the same observation. This was justified by early maternity and a lack of pregnancy follow-up, all in a context of poverty in our populations. These data called on the policy makers to raise awareness and educate young girls about early motherhood and pregnancy monitoring.

The average delay between anesthetic induction and fetal extraction was three minutes and the average duration of the intervention was forty minutes. The evolution was favorable on the whole. Indeed, no maternal or fetal death was recorded.

This showed that emergency cesarean section contributed significantly to the reduction of maternal and infant mortality. It should be popularized in health facilities with the necessary technical facilities.

CONCLUSION

Caesarean section is a widely used surgical technique that is most often performed as an emergency. Spinal anesthesia remains the most commonly used technique. Performed as an emergency, cesarean section has saved many lives. Should we continue to let a woman lose her life while giving life when we have the means to save her and when we have the means to do so? No, let's popularize the emergency C-section so that women can live.

Conflicts of Interest

The authors declare no conflicts of interest.

Author Contributions

All authors had contributed to the development of this study.

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