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## Management of post caesarean section complications in the general surgery department of the Ignace Deen National Hospital

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### Abstract

**Introduction:** Despite scientific progress in the fields of anesthesia and surgery, caesarean section is still not a harmless procedure. The aim of this study was to report the post caesarean section complications received in the general surgery department of the Ignace Deen National Hospital at the University Hospital of Conakry.

**Materials and Methods:** It this was an observational, cross-sectional and descriptive study of six (6) months (January 1· 2021 to June 30, 2021) in the general surgery department of the Ignace Deen National Hospital, CHU of Conakry. The socio-demographic and therapeutic variables were studied.

**Results:** We collected 31 cases of postoperative complications among women in the department, of which 19 cases were post cesarean sections (61.29%). The age group from 20 to 39 years most affected (63.2%, n=12). The average age was 28.79 years. Most caesarean sections were performed in peripheral structures (private health centers, municipal centers and prefectural hospitals (73.7%, n=14) and 26.3% of cases, n=5) took place at the maternity hospital of the CHU. Operators - were residents in gynecology-obstetrics (42.1% n=8) and general practitioners acting as obstetrician-gynaecologists (36.8% n=7). Generalized acute peritonitis and surgical site infections were the most observed complications with 42.1% (n=8) and 26.3% (n=5). Iatrogenic colonic and bladder wounds were noted. The surgical procedures performed were visceral trimmings and sutures followed by peritoneal cleansing with drainage (53.8% (n=7). The outcome was 100% favorable (n=19) with an average hospital stay of 14 days.

**Conclusion:** Post cesarean complications were frequent among the surgical complications referred to our department. Acute generalized peritonitis and surgical site infections ranked first. The care was medical surgical. The follow-up was favourable. Hope lies in prevention through appropriate pregnancy monitoring measures and planning for a safe caesarean section.

**Keywords:** Post cesarean complications, management

### Introduction

Caesarean section performs artificial delivery after surgical opening of the uterus. Its indications are multiple: uterine scars, dynamic or mechanical dystocia, fetal distress, adnexal pathologies of the fetus and gravidic pathologies <sup>[1]</sup>. It is one of the oldest and most performed surgical procedures for women worldwide <sup>[2]</sup>.

Caesarean section can be marred by complications such as endometritis, thrombophlebitis, pelviperitonitis, acute generalized peritonitis, surgical site infections, evisceration and eventration prolonging the average length of hospitalization <sup>[2, 3]</sup>.

The high frequency of post-caesarean complications and the difficulties of management motivated this study, the general objective of which was to contribute to the management of complications in a general surgery department.

### Material and Methods

This was an observational, cross-sectional, descriptive type study of six (6) months from January 1<sup>st</sup> to June 30, 2021 on the management of complications of cesarean section referred to the general surgery department of the hospital. Ignace Deen National Hospital of Conakry University Hospital.

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Data were collected through patient interviews, clinical examinations, paraclinical, and postoperative follow-up. The study population was represented by all the women seen in the service for a postoperative complication during the study period. Were included, the patients admitted in the service for a post cesarean complication during the period of study. The study variables were frequency, age, level of education, marital status, parity, number of antenatal consultations, mode of admission, indication of cesarean section, context of cesarean section., the place of performance of the caesarean section, the qualification of the operator, the postoperative follow-up, the complication, the time for the onset of the complication, the nature of the complication, the time taken for management in the department, the evolution, the state at the exit and the duration of hospitalization.

## Results

We recorded 31 cases of postoperative complications in women, including 19 cases occurring after cesarean sections, i.e. 61%. The average age was 28.79 years with extremes of 18 and 42 years. Housewives were represented with 47.4% (n=9) cases followed by liberal professions with 36.8% (n=7) cases. The unschooled were the most represented with 47.4% (n=9) cases. We noted 47.4% (n=9) multiparous and 36.8% (n=7) pauciparous.

**Table 1:** Distribution according to indication for caesarean section

Directions	Effective	Percentage
scarred uterus	8	42.1
Acute fetal distress	5	26.3
Mechanical dystocia	4	21.05
Retro placental hematoma	2	10.5
Total	19	100

**Table 2:** Distribution depending on where the caesarean was performed

Place	Effective	Percentage
university hospital	5	26.3
Private clinic	5	26.3
HP	5	26.3
CMC	4	21.1
Total	19	100

**Table 3I:** Distribution according to the level of qualification of the operator

Operator	Effective	Percentage
Resident in Obstetrics Gynecology	8	42.1
General practitioner acting as Gynecologist.	7	36.8
Specialist in Obstetrics Gynecology	4	21.1
Total	19	100

**Table 4:** Distribution according to the types of complications

Complications	Effective	Percentage
Acute generalized peritonitis	8	42.1
Surgical site infection	5	26.3
Acute bowel obstruction by bands	3	15.8
Eventration	2	10.5
Stercoral fistula	1	5.3
Total	19	100

**Table 5:** Distribution according to the balance sheet intraoperative lesion of the complication

Nature	Effective	Percentage
Purulent fluid without organ damage	12	63.1
Flanges	3	15.8
Eventration	2	10.5
Iatrogenic colonic lesion	1	5.3
Iatrogenic bladder injury	1	5.3
Total	19	100

**Table 6:** Distribution depending on the surgical procedure performed

Gestures	Effective	Percentage
Toilet + drainage	12	63.1
Toilet + bladder suture + drainage	1	5.3
Flange resection	3	15.8
Cure of dismemberment	2	10.5
Toilet + colonic suture + drain	1	5.3
Total	13	100

**Table 7:** Distribution of patients depending on length of hospitalization

Duration	Effective	Percentage
7-14 days	10	52.6
15-21 days	5	26.3
7 days	2	10.5
> 21 days	2	10.5
Total	19	100

Average duration: 14 days Extremes: 5 days and 27 days  
The evolution was favorable in all cases, i.e. 100% (n=19).

## Discussion

Maternal complications of caesarean section make it considered as a more risky way of childbirth than vaginal delivery. The caesarean patient in fact combines the risks of giving birth and those of abdominal surgery<sup>[4]</sup>.

During the study period, we recorded a significant frequency of post caesarean complications. Our results were comparable to those of Saad B *et al.*<sup>[3]</sup> in Morocco who found a frequency of 63.6%. But superior to those of Diallo FB *et al.*<sup>[5]</sup> in Guinea who reported 40.55% of complications. This high frequency could be explained by the introduction of free caesarean sections, the existence of residents in the obstetrics gynecology departments in the University Hospital of Conakry and the multitude of clandestine surgeries in our capital.

Young people were the ones represented in our study. The same observation was made by Berthé B *et al.*<sup>[6]</sup> in Bamako who observed an average age of 26 years with extremes of 15 and 44 years and by Diawara A *et al.*<sup>[7]</sup> who reported an age range of 20 to 35 years. In our context most women reproduce in this interval. Housewives were the most represented in our study. Yobi AS *et al.*<sup>[2]</sup> in Burkina Faso noted a predominance of housewives with 70%. This predominance of housewives is explained by their greater representation in the general population. The uneducated were the most represented. This observation was close to the results of Sissoko A *et al.*<sup>[8]</sup> in Bamako who reported 64.3% of non-schoolers. This high frequency of uneducated people in our study could be related to female illiteracy in the general population in our country. Scarred uterus was the most common indication for caesarean

section in our study. Our results were comparable to those of Saad B *et al.* [3] in Morocco and Kali bushi BJ *et al.* [9] in Rwanda who noted respectively 26% and 52.6% scarred uterus. On the other hand, our results were different from those of Dupont J *et al.* [10] in Yaoundé who reported that prophylactic caesarean section was the most frequent indication with 41.52%. The high frequency of scarred uteri could be related to the increased indications for caesarean section in parturients nowadays.

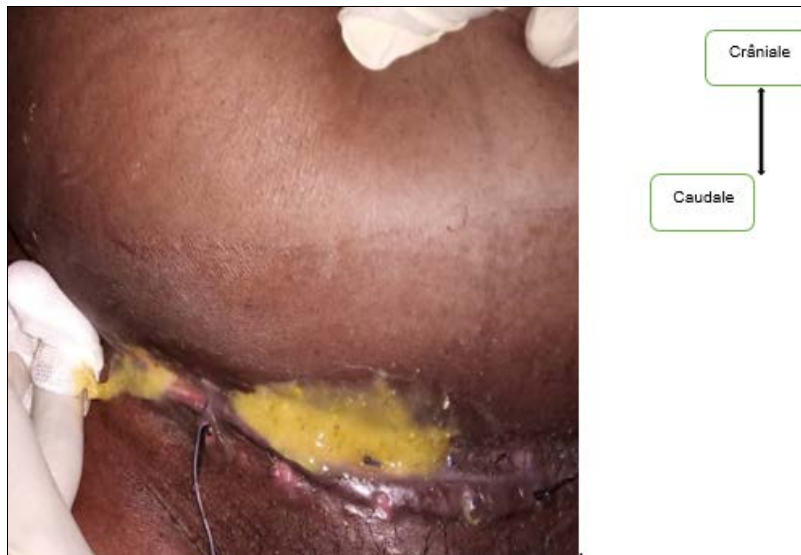
Depending on where the caesarean section was performed, the complications came from clandestine clinics and the CHU in the majority of cases. This could be due to the anarchic proliferation of private clinics in our capital and the presence of residents in training in the University Hospital of Conakry.

Depending on the operator's level of qualification, complications were found in the majority of cases in patients operated on by residents in gynecology and obstetrics. Dupont J *et al.* [10] in Yaoundé made the same observation in their study with 46.08%. The predominance of complications among those operated on by residents in our context could be explained by their lack of experience of this professional layer. Generalized acute peritonitis was the most recorded complication in our study, followed by surgical site infections. Our results were different from those of Diallo FB *et al.* [9] Diallo MH *et al.* [11] in Guinea,

Saad B *et al.* [3] to Morocco who found infection of the surgical site as the main postoperative complication with respectively 71.59%; 95.49% and 35.7%. In Tunisia in 2018, Latifa M *et al.* [12] found 5% surgical site infection.

For Harou K *et al.* [13] in Morocco necrotizing fasciitis was the observed complication. The predominance of peritonitis in our study could be related to the delay in consultation after the onset of the complication and the study was performed in surgery. Treatment was surgical in most cases. Complementary medical treatment was carried out in all cases. This treatment consisted of analgesics, antibiotics, macromolecules, blood and derivatives. The surgery consisted of dressings, re-intervention to clean the peritoneal cavity, drainage and treatment of lesions. The evolution was favorable as observed by Yobi AS *et al.* [2] in Burkina Faso with 100% of healing cases. The adaptation of the treatments, the regular follow-up of the patients, the improvement of the technical platform could explain the favorable outcome for the patients of our study. The average length of stay observed in our study was comparable to the results of Berthé B *et al.* [6] in Bamako who recorded an average hospital stay of 17.5 days, but for Yobi AS *et al.* [2] in Burkina Faso, the average duration was longer with 23.8 days and extremes of eight (8) and sixty-four (64) days.

### Iconography



### Conclusion

Post caesarean complications accounted for more than half of postoperative complications among women in the general surgery department of Ignace Deen National Hospital during the study period. Acute generalized peritonitis and surgical site infections were the most common. Management consisted of medical treatment and surgical revision. The evolution was favorable in all cases.

The hope lies in the prevention of these complications by appropriate measures for monitoring pregnancies, planning a caesarean section and carrying it out in compliance with surgical safety conditions.

### Conflict of Interest

Not available

### Financial Support

Not available

### References

1. Merger R, Levy J, Melchior J. Cesarean section: technical indications, complications in Précis d'obstétrique. 6<sup>th</sup> edition, Masson, Paris; c2001. p. 533.
2. Yobi SA, Komboigo E, Sibraogo K, Zamane H, Ouedraogo I, Dantola PK. Post-caesarean parietal suppuration at the Yalgado University Hospital Center Ouedraogo, Burkina-Faso: epidemiological, clinical, therapeutic and prognostic aspects. Pan African Medical Journal. 2019;32:1-2.
3. Saad B, Saadi H, Mimouni A. The epidemiological profile of maternal complications of caesarean section at CHR EL Farabi Oujda in Morocco. Pan African Medical Journal. 2017;27:2-6.
4. Trabelsi K, Jedidi J, Yaich S, Louati D, Amouri H, Gargouri A, *et al.* Perioperative maternal complications of caesarean section: about 1404 cases JIM Sfax. 2006(11/12):33-38.
5. Diallo FB, Diallo MS, Bangoura S, Diallo AB, Camara Y.

- Caesarean section: Factor for reducing fetomaternal morbidity and mortality at the Ignace Deen university hospital center in Conakry (Guinea). *Black African Medicine*. 1998;45(6):359-364.
- Berthé B, Traoré S, Konaté I, Sogoba D, Tall S, Samake A, *et al*. Comparative study of infections of the surgical site: systematic cesarean versus iterative cesarean at the reference health center of the commune v of the district of Bamako/Mali. *Rev Mali Infect Microbiol*. 2019;14:27-31.
  - Diawara A, Sangho H, Tangara I, Cissé MO, Traoré MN, Konaté S. Post caesarean and free caesarean section complications in Mali: Case of a district health center in Bamako. *Mali Medical*. 2014;29(1):40-43.
  - Sissoko A, Traore A, Kanté I, Bocoum A, Traoré SO, Fane S, *et al*. The complications of cesarean Section at Teaching Hospital Gabriel TOURE, Bamako Mali. *Open Journal of Obstetrics and Gynecology*. 2020;10:546-557.
  - Kalibushi Bijimana J, Ndoli J, Bayingana C, Baluhe I, Gilson GJ, Habimana E. Prevalence and risk factors for post cesarean delivery surgical site infection in a Teaching Hospital Setting in Rural Rwanda: A prospective cross sectional study. *Int. J Curr. Microbiol. App. Sci*. 2016;5(6):631-637.
  - Dupont J, Ngowa K, Ngassam A, Fouogue JT, Metogo J, Medou A, *et al*. Early maternal complications of caesarean section: about 460 cases in two university hospitals in Yaoundé, Cameroon. *Pan African Medical Journal*. 2015;21:5-6.
  - Diallo MH, Baldé IS, Diallo AD, Baldé O, Diallo BS, Sylla I, *et al*. Maternal complications of caesarean section in a resource-limited country: The case of the maternity unit of Kankan regional hospital, Guinea. *Open Journal of Obstetrics and Gynecology*. 2019;9:981-990.
  - Latifa M, Nedja M, Hajer H, Massoudi A, Olfa BE, Manssouri W, *et al*. Incidence and risk factors of surgical site infection after caesarean section in a maternity hospital in Tunisia. *Public Health Review*. 2018;30:339-347.
  - Harou K, Oumouloud R, El Adib AR, Soummani A. Post cesarean necrotizing fasciitis: a rare complication. *Ann. Fr. Med. Emergency*. 2012;2:405-407.

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