Journal of Gynecology and Obstetrics
2023; 11(6): 160-163
http://www.sciencepublishinggroup.com/j/jgo
doi: 10.11648/j.jgo.20231106.16
ISSN: 2376-7812 (Print); ISSN: 2376-7820 (Online)

Surgical Management of Obstetrical Complications in the General Surgery Department of the Hospital National Ignace Deen, University Hospital Centre of Conakry January 2018 December 2021, Guinea

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To cite this article:

Tolno Tamba Julien, Bangoura Salematou, Kourouma Kadiatou, Tolno Pascal, Sy Telly et al. (2023). Surgical Management of Obstetrical Complications in the General Surgery Department of the Hospital National Ignace Deen, University Hospital Centre of Conakry January 2018 December 2021, Guinea. *Journal of Gynecology and Obstetrics*, *11*(6), 160-163. https://doi.org/10.11648/j.jgo.20231106.16

Received: October 3, 2023; **Accepted**: October 30, 2023; **Published**: December 11, 2023

Abstract: Introduction: Obstetric complications are defined as the appearance of new pathological phenomena involving the digestive system following surgical procedures on the uterus carried out for preventive, diagnostic or therapeutic purposes. the aim of the study was to describe the surgical management of obstetric complications in the general surgery department of the Ignace Deen National Hospital, University Hospital Centre of Conakry. Material and methods: This was a 4-year retrospective descriptive study (January 2018 to December 2021) carried out in the general surgery department of the Ignace Deen National Hospital. All complete records of patients with one or more obstetric complications who received surgical management during the study period were included. Sociodemographic, clinical, therapeutic and evolutionary variables were studied. Results: Out of 1664 patient files, we recorded 105 cases of obstetric complications, i.e. a frequency of 6.31%. The mean age was 27.52 ± 5 years, with extremes of 16 and 45 years. Housewives were the most common (57.1%). The main obstetric complications were acute generalised post-caesarean peritonitis (34.3%) followed by acute intestinal obstruction (24.8%). Management consisted of excision-suturing of breaches, resection of flanges and peritoneal cleansing with drainage. Conclusion: Obstetric complications are fairly frequent in our practice and are dominated by peritonitis and intestinal obstruction. Early and multidisciplinary management can improve the vital prognosis.

Keywords: Obstetric Complications, Surgical Management, Conakry University Hospital, Guinea

1. Introduction

Obstetric complications are defined as the appearance of new pathological phenomena involving the digestive system following surgical procedures on the uterus carried out for preventive, diagnostic or therapeutic purposes. Among these complications, acute generalised peritonitis (AGP), acute intestinal obstruction (AIO), ventration, evisceration, ruptured ectopic pregnancy, digestive fistula and obstetric fistula are the most frequent [1, 2].

Indeed, the WHO and the United Nations Children's Fund (UNICEF) estimate that more than one million women die each year worldwide as a result of obstetric complications [3, 4].

However, almost all of these deaths occur in developing countries, more than half of them in sub-Saharan Africa. Despite advances in technology, anaesthesia and resuscitation, the incidence of obstetric complications has continued to rise in recent years in both developing and

developed countries [1].

The aim of this study was to describe the surgical management of obstetric complications in the general surgery department of the Hôpital National Ignace Deen, CHU de Conakry.

2. Materials and Methods

This was a retrospective descriptive study lasting 4 years from 1 January 2018 to 31 December 2021. It focused on the records of patients operated on for one or more obstetric complications in the general surgery department. All complete records of patients with one or more obstetric complications who received surgical management during the period were included in the study. The variables studied were sociodemographic, clinical, therapeutic and evolutionary. The data were entered and analysed using Epi-info software (version 21). Quantitative variables were expressed as averages, while qualitative variables were expressed as proportions and percentages.

3. Results

During the period from January 1, 2018 to December 31, 2021, out of 1664 records of hospitalized patients, 105 presented obstetrical complications and met our inclusion criteria, i.e. a frequency of 6.31%. The mean age was 27.52 ± 5 years, with extremes of 16 and 45 years. Married women (69.5%) and housewives (57.1%) were the most represented. Women with no formal education were the most numerous (84.8%). Table 1 summarises the characteristics of the population.

The average consultation time was 1.8 ± 0.52 months, with extremes of 1 day and 8 months.

The main obstetric complications were acute generalised post-caesarean peritonitis (34.3%) followed by acute intestinal obstruction (24.8%). Table 2 shows the breakdown by type of complication.

The diagnosis of these complications was essentially clinical. Unprepared abdominal X-rays (UAP) and abdominal ultrasound were helpful in the diagnosis in 56.2% and 13.3% of cases respectively.

All patients required resuscitation. The main lesions observed were uterine breaches and postoperative bridges. Table 3 summarises the surgical procedures performed.

Post-operative management was straightforward in 87.6% of cases. We noted nine cases of complications such as surgical site infection (n=6), intestinal obstruction (n=1), peritonitis (n=1) and stercoral fistula (n=1). Overall mortality was 3.8% (n=4).

Table 1. *Characteristics of the population.*

Characteristics	Number (N=105)	Percentage
Age		
≤ 20	14	13.3
21-30	20	19.1
31-40	48	45.7
≥ 40	23	21.9
Average age: 27,52 ± 5years	Extremes:	16 and 45years
Marital status		
Married	73	69.5
Widowed	14	13.4
Single	10	9.5
Divorced	8	7.6
Level of education		
No education	89	84.8
Educated	16	15.2
Occupation		
Housewife	60	57.1
Trader	17	16.2
Fonctionnaire	14	13.3
Pupil/student	11	10.5
Manual worker	3	2.9

Table 2. *Distribution of the 105 patients by type of complication.*

Type of complication	Number (N=105)	Percentage
Post-operative peritonitis	36	34.3
OIA* post caesarean section	26	24.8
Ruptured extra uterine pregnancy	19	18.1
Post caesarean eventration	15	14.3
Vesico-vaginal fistula	6	5.7
Post-operative evisceration	3	2.8

*OIA: Acute intestinal obstruction

Table 3. *Distribution of the 105 patients according to the surgical procedures performed.*

Surgical procedures performed	Number (N=105)	Percentage
Hysterorraphy	36	34.3
Resection of flanges	26	24.8
Adnexectomy	19	18.1
Prosthetic cure of eventration	15	14.3
Cystorraphy colpo-périnorraphy	6	5.7
Aponeurography suture	3	2.8

4. Discussion

During the four years of the study, we collected 105 records of patients with an obstetric complication out of a total of 1664 hospitalised patients, i.e. a hospital frequency of 6.31%. This rate is lower than the figure of 11.6% found by Baldé IS et al in Guinea in 2019 [5]. This difference could be explained by the size of the population. Added to this is the fact that initial interventions often take place in peripheral health structures, by general practitioners and in precarious conditions.

The mean age of 27.52 years found in this study is similar to that of Vignon KC et al 2016 in Benin [6] who reported 30.9 years. In the African population in general and the Guinean population in particular remains predominantly young [7].

In our study 90.48% of our patients lived in Conakry compared to only 9.52% from the interior of the country. Our results are contrary to those found by Owono EP et al in Cameroon in 2017 [8] who found that 52.9% of women lived in rural areas. This frequency can be explained by the geographical location of the Ignace Deen national hospital, which is in the heart of Conakry, the capital, and difficult to access for women living in rural areas.

The predominance of married women at 69.52% is higher than that reported by Soumaoro Labilé Togba et al in 2017 in Guinea [9] who found 63.09% married women and Benkirane S et al. explained that concerning parity 42.76% were primiparous and 40.85% were pauparous that means married women are called to give birth in their family [10]. This situation could be considered an advantage in our context, where the weakness of the health insurance system means that the family has to bear all the medical costs associated with caring for the sick.

In the series, 84.76% of our patients did not attend school and 57.14% were housewives. Our results are superior thqn to those of Aneela et al who mention that 52% women had no formal education, 28% had possessed formal education till middle class and 20% women had completed their graduation [11]. Lack of information, poverty, accessibility, inadequate services and cultural practices were the factors that generally prevented women from receiving or seeking care during pregnancy and childbirth.

The majority of these patients were referred from peripheral health facilities. Our results are better than those of Soumaoro Labilé Togba et al in Guinea [9] who reported 63.09% of patients referred and Bailey et al declare that Lower level facilities tended to refer most, otherwise these referring represented 9% [12]. This could be explained by the fact that there are few specialists in the local facilities and the complexity of the complications.

The average consultation time was relatively long. This delay can be explained by the use of traditional medicine and self-medication, which are quite common in our environment.

In terms of mode of delivery, caesarean sections were the most common. This could explain the high frequency of certain complications such as acute generalised peritonitis and acute intestinal occlusions which occur after caesarean section. According to this reasoning in the apparition of obstetrical complications after caesarean, Jilaveanu et al confirm that uterovesical fistula especially can be observe also after obstetric injury related to instrumented delivery or Caesarean section [13].

The rate of unprepared abdominal X-rays was 56.2%, followed by abdominal ultrasound at 13.3%. This rate is close to that of Vignon KC et al, who reported 20 cases of APS, i.e. 58% [6]. This low rate of imaging examinations can be explained by the low socio-economic level of the population, and also by the fact that patients consulted several peripheral facilities before being referred to the department, which has no financial resources.

Suture of the breach associated with peritoneal cleansing were the surgical procedures most frequently performed (34.3%), whereas Vignon KC et al performed hysterorraphy in 11 cases and Soumaoro LT et al also performed suture of the uterus [6, 9], but a subtotal hys-terectomy with subsequent termination of pregnancy and in- testinal resection were performed; the surgical were performed to a women of 26-year-old who was a multigravida, and developed acute abdomen, severe sepsis, and disseminated intravascular coagulation at 16 weeks of gestation said Umberto Leone in their study [14].

Overall, the therapeutic outcome was favourable; however, we noted a mortality rate of 3.8%. Our results are far superior to those of Baldé I et al. in Guinea in 2019 [5] and Benkirane S et al. in 2017 in Morocco [10] who found respectively 1.3% and 0.16%. This high rate in our context could be explained by the delay in management and the inadequacy of resuscitation resources. Rui Hou et al confirm that the vaginal bleeding during pregnancy can lead to the highest caesarean section as an option of surgery therapeutic but it is a risk factor for maternal complications, maternal and neonatal morbidity [15].

5. Conclusion

Obstetric complications are not negligible in frequency and are dominated in our context by peritonitis and post-caesarian occlusions. Better regulation of private medical practice and early, multidisciplinary management are necessary not only to reduce the occurrence of these complications, but above all to improve the vital prognosis of these patients.

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