SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://www.saspublishers.com

OPEN ACCESS

Anesthesia-Resuscitation

Evaluation of the Anesthetic Management of Patients with Obstetric Fistula at CHU-Point G

Sangaré, M[1*], Sidibé, K[1], Sissoko, F[1], Bamba, I[1], Kamissoko, B[1], Traoré, M[1], Bamba, D[1], Deh, A[1], Kanté, M[1], Samaké, R[1]

[1]Medical Assistant at the Anesthesia-Resuscitation Department of the Sikasso Hospital, Mali

DOI: 10.36347/sasjs.2023.v09i03.006 | **Received:** 11.02.2023 | **Accepted:** 14.03.2023 | **Published:** 19.03.2023

***Corresponding author:** Sangaré, M
Medical Assistant at the Anesthesia-Resuscitation Department of the Sikasso Hospital, Mali

Abstract **Original Research Article**

Introduction*:** Our study aimed to evaluate the anesthetic management of women suffering from obstetric vesico-vaginal fistulas at the Point G University Hospital. ***Patients and Methods*:** A descriptive retrospective study from 02 January 2018 to 31 December 2018 in the anesthesia-intensive care unit of the University Hospital Center (CHU) of Point G. ***Results: During the study period, we collected 48 cases of obstetric fistula out of a total of 237 operated during the period, a frequency of 20.25% of all surgical activities. Housewives were the most represented with 72.91% of cases. The most affected age group was 21-30 years with 37.5% of cases. Anesthesia was performed in 87.5% of cases by a medical assistant. The technique used was spinal anesthesia, so all patients received bipuvacaine for their anesthesia. One case of low blood pressure and one case of bradycardia were intraoperative incidents or a total of 2.08% of cases. ***Conclusion*:** Resuscitation anesthesia plays an important role in the successful management of obstetric fistula. Regional anesthesia is the most widely used method.

Keywords: Rachianesthesia, obstetric vesicovaginal fistulas, bipuvacaine.

INTRODUCTION

Obstetric fistula is an abnormal communication between the bladder and vagina resulting in involuntary and permanent loss of urine from the vagina. It is a serious condition that is a social and psychological tragedy for women who suffer from it [1]. Its etiologies vary from one region to another. In the West, 82% of vesicovaginal fistulas are of iatrogenic origin [2], only 8% come from dystocic deliveries and 6% from radiotherapy [3]. In sub-Sahelian Africa, dystocic deliveries account for 84% of obstetric emergencies [3, 4]. In Côte d'Ivoire and Mali, obstetric etiology is the most common and accounts for 75% in the 15-35 age group [5]. This obstetric complication most often occurs during unassisted deliveries or deliveries attended by an unskilled worker. Surgery of the small pelvis, perimedullary anesthesia is widely performed for the management of these patients. This technique has the advantage of being relatively simple to perform; However, it can present some more or less formidable complications such as hypotension and bradycardia.

Many studies carried out in Mali have focused on the surgical and epidemiological aspects of vesicovaginal fistula at the Point G University Hospital.

Our study aimed to evaluate the anesthetic management of women suffering from obstetric vesico-vaginal fistulas at the Point G University Hospital.

PATIENTS AND METHODS:

This was a descriptive retrospective study from 02 January 2018 to 31 December 2018 in the anesthesia-intensive care unit of the University Hospital Centre (CHU) of Point G.

- All women who underwent obstetric fistula surgery during the study period were included in the study.
- Not included, patients operated for other pathologies, fistulous operated outside the study period.

Data were collected on pre-established survey sheets from medical records, treatment and monitoring records, hospitalization records. The variables studied were qualitative (Gender, profession, residence, reference, type of fistula, anesthetic technique,

anesthetic product used, anesthetic complications), quantitative (age, duration of intervention, dose of anesthetic, number of punctures, Spo2 monitoring, heart rate, blood pressure, dose of vasoconstrictor used).

Our data was entered with Microsoft Office Word 2013 software and analyzed on SPSS software version 22.0.

RESULTS

During the study period, we collected 48 cases of obstetric fistula out of a total of 237 operated during the period, a frequency of 20.25% of all surgical activities. The origin of our patients was outside Bamako in 58.3% of cases. Housewives were the most represented with 72.91% of cases. The 21-30 age group was the most represented with 37.5% (Table I). The majority of patients (89.58%) had a surgical history (Caesarean section, Fibroid, vesicovaginal fistulas). Type I fistula from the Point G hospital classification predominated with (22/48) or 45.8% of cases. In 35.4% of cases, they were primiparous. In 70.83% of cases, our patients had given birth in the maternity ward. The general condition of the patients was good in almost all patients (93.75%). They all had good mobility of the dorsollumbar and cervical spine. The Mallampâti I score predominated with 75%. ASA 1 predominated with 87.5%. Anesthesia was performed in 87.5% of cases by a medical assistant. The technique used was spinal anesthesia, so all patients received bipuvacaine for their anesthesia. The 10mg dose was the most used with 58.33% of cases (Table II). Fentanyl was the most commonly used adjuvant. Hypnotics such as ketamine were used in 3 cases. The duration of the intervention was less than one hour of time in 45.83% of cases. Anesthesia lasted less than 2 hours in 52.08% of cases. In 87.49% of cases, it was spinal anesthesia (Table III). One case of low blood pressure and one case of bradycardia were intraoperative incidents or a total of 2.08% of cases.

Table I: Distribution of patients by age group

Age	Number of patients	Percentages
14 - 20 ans	13	27,08
21 - 30 ans	18	37,5
31 - 45 ans	15	31,25
46 ans et plus	2	4,16
Total	48	100

Table II: Distribution of patients by dose of Bipuvacaine used

Dose de Bipuvacaïne en mg	Number of patients	Percentages
10	28	58,33
12,5	13	27,08
15	7	14,58
Total	48	100

Table III: Distribution of patients by duration of anesthesia

Durée anesthésie	Number of patients	Percentages
< 2heures	25	52,08
>2 heures < 3 heures	17	35,41
< 3 heures	6	12,5
Total	48	100%

DISCUSSION

Frequency

We identified 48 anaesthetic procedures for the study period concerned, representing a frequency of 20.25% of all surgical activities during the period. This rate is higher than that of the series of Tembély A *et al*., (17%) of the operating room activities [15].

Age

All age groups are affected with a predominance of the 21-30 age group or 45.2%. This result is close to that of Qi Li Ya *et al*., who had found that most patients are aged 15 to 35 years or 79.4%. According to a study in Niger by G.

Sanda *et al*., the average age of fistula occurs is 18.9 years [6, 14]. Vesicovaginal fistula is thought to be common in young and active populations of childbearing age. Indeed, obstetric urogenital fistulas in this age group occur most often following a dystocic delivery on a small and immature pelvis [16].

Marital status

All patients in our series were married (100%), unlike Bah OR *et al*., (56.16%). This result is explained by the impact of raising awareness among husbands on the possibility of free curative treatment [17].

Origin

Bamako in only 25% of cases; proportion comparable to that of KONE M [13] which also had

25% in a similar study in Ségou. This could be explained by the existence of other VVF treatment centres and by IVF treatment campaigns and the training of VVF surgeons.

Classification de ASA

The majority of patients were ASA I with 87.5% followed by ASA II 12.5%. This result is close to that of DICKO M.E. [8] which had obtained 88.99% of ASA I patients, slightly higher than that of BELEM A. K [9] which had 60.98% of ASA I patients but different from that of GRAVOT B. [7] which had obtained 47.9% in France.

Surgical history

In this series, 89.58% had a surgical history, among these surgical history caesarean section occupied 52.08%, uterine fibroid occupied 2.08%, recurrence of fistulas occupied 39.58%.

Parity and causal pregnancy

Primiparous represented 35.4% against 25% for multiparous, this result is close to that of KONE M [13] primiparous (30.4%) against 19.6% of multiparous. Bouya P. A *et al*., [10] found 38% primiparous and 15% multiparous.

If primiparous and large multiparous are exposed to fistula and incontinence, the causes are different. For primiparous people, the immaturity of the pelvis is involved and for large multiparous people, the cause is generally dynamic.

The type of anesthesia

Spinal anesthesia was performed in 93.75% of our patients and in 6.25% sedation was introduced due to the lifting of the block. The predominance of spinal anesthesia could be explained by the fact that almost all urological procedures were scheduled and most interventions took place in the subumbilical region.

Qualities of the anaesthetist

In this study, 87.5% of anesthetic procedures were performed by medical assistants compared to 12.5% for medical assistants. This result is comparable to that of Diarra M [11], Belem AK [9] and Fotso [12] who had also found a predominance among medical assistants.

Intraoperative incidents and accidents related to anesthesia

Arterial hypotension was observed in 2.08% as well as bradycardia in the same percentages, this result is comparable to that Belem AK [9] which had hypotension in 4.44% of cases.

The duration of the intervention

The operative intervention lasted less than 60 minutes in 45.83% of cases, this result is comparable to that of DIARRA M [11] which had obtained 46.6% in less than 60 minutes, but it is slightly higher than that of Belem AK [9] which had 26.02%.

Annexes:

CLASSIFICATION OF THE FISTULA OF THE CHU Point G

Type I: Typical fistula of the vesicovaginal septum
Type II: Vesicocervico-urethral fistula
Type II A without destruction of the urethra
Type II A a- Cervic-urethrovaginal fistula
Type II A b- Partial cervico-urethral disinsertion
Type II A c- total cervico-urethral disinsertion
- permeable urethra
- one-eyed urethra
Type II B With destruction of the urethra
Type III- Trigono fistula – cervico-utero-vaginal
Type IV – Complex fistula
Type V- High fistulas and others
(Vesico-uterine, Vesico-cervico-uterine, uretero-vaginal).

CONCLUSION

Resuscitation anesthesia plays an important role in the successful management of obstetric fistulas. Regional anesthesia is the most widely used method. It provides the greatest anesthetic safety and offers several advantages: simplicity, speed of action and a total neurosensory block. However, the adequate management of obstetric fistulas requires the establishment of a good anesthetic technical platform to minimize perioperative complications.

REFERENCES

1. Richardson, D. A. (1994). Ethics in gynecologic surgical innovation. *Ann J Gyn Obst*, 170, 1-6.
2. Tancer, M. (1992). Observations on prevention and management of vesicovaginal fistulas after total hysterectomy. *Surg Gyn Obst*, 6, 501-506.
3. Benchekroun, A., Abakka, T., & Essakali, H. N. (1987). Vesivaginal fistulas about 600 cases. *J Urol*, 93, 151-158.
4. Falandry, L. (1990). The double autoplasty of the large lip in the cure of vesico-vaginal fistulas of obstetric origin: about 10 cases. *J Chir*, 127, 107-112.
5. Kakou, K. F. (1992). Contribution to the epidemiological study of urogenital fistulas in Côte d'Ivoire. About 104 cases [thesis]. Abidjan: National University of Côte d'Ivoire.
6. Sanda, G., Nafiou, I., & Mounkaila, A. (2001). Urogenital fistula in Niger: Epidemiological aspects and consequences, *African Jounal of Urology*, 7(3), 103-108.
7. Gravot, B. (1995). Events, incidents and accidents related to anesthesia, analysis of one year of activity of the anesthesiology department of urban hospitals of Nancy.Thesis presented at the University Henri POINCARE Faculty of Medicine of Nancy on June 14, No. 97.

8. Dicko, M. E. (1999). The anesthetic risk in scheduled surgery at the Gabriel Toure hospital. Thesis presented at the University of Mali Faculty of Medicine, Pharmacy and Odontostomatology of Mali in No. 46.
9. Belem, A. K. (2018). Evaluation of the anesthetic management of patients operated in urology at the CHU DU POINT G, p73.
10. Bouya, P. A., Nganongo, W. I., Lomin, D., & Iloki, L. H. (2002). Retrospective study of 34 urogenital fistulas of obstetricalal origin. *Gynecologie, Obstetrique & Fertilite*, *30*(10), 780-783.
11. Diarra Mamadou, N. (2010). Incidents and Accidents during anesthesia in urological surgery at the CHU Gabriel TOURE [Thesis: Med] Bamako: University of Science, Technology and Technology Bamako, N°160 P100.
12. Fotso, K. (2005). Anesthesia incidents and accidents at the HNPG. Thèse de médecine Bamako, 60p.
13. Kone, M. (2015). Obstetric uro-genial fistulas at Niannankoro Fomba Hospital in Segou about 56 cases. [Thesis: Medicine]. Bamako: FMPOS.
14. Qi, L., Ya, Z., & Ouattara, K. 2000). Ouattara: Treatment of vesicovaginal fistulas at Kati Hospital: about 34 cases, *Black African Medicine*, 47(3).
15. Tembély, A., Diakité, M. L., Berthé, H., Sangaré, D., Diallo, M. S., Diakité, A. S., ... & Ouattara, K. (2015). Study of factors influencing clinical outcomes of obstetric urogenital fistula surgery at the Point G University Hospital of Bamako, Mali. *Le Mali Medical*, *30*(3), 42-45.
16. Niassy, A. C. B., Niang, L. A., Diallo, M. B., Jalloh, M. A., Ndoye, M. A., Labou, I. A., & Gueye, S. M. G. A. (2019). Surgical missions for the management of obstetric fistula in sub-Saharan Africa: Epidemiological, clinical and therapeutic aspects, Uro'Andro, 2(1).
17. Bah, O. R., Diallo, A., Cisse, D., Barry, A. O., Bah, I., Guirassy, S., Barry, M., Diallo, T., Bah, M. D., Kante, D., Diallo, A. B., & Diallo, M. B. (2019). Obstetric vesico-vaginal fistulas: Psychosocial aspects in two care sites in Guinea, Uro'Andro, 2(1), 20-23.