



Surgical Management of Urogenital Fistula UGF: Sikasso's Hospital Experience

Salifou Traore

Service of Urology / Sikasso. Hospital

Ousmane Dembélé

Service of Urology / Sikasso. Hospital

Kateneme S Ouattara

Service of Urology/Sikasso hospital

Sissoko Falaye

Service of Urology / Sikasso.Hospital

Bathio Traore

Service of General surgery / Sikasso.Hospital

Aly B Diallo

Service of General Surgery /Hôpital de Sikasso

Abdoulaye Sanogo

Service of Dialysis Nephrology /Sikasso Hospital

Soumaila Traore

Service of Gynaeco obstetrics

Abdou Dolo

Service of Dialysis nephrology /Sikasso Hospital

Ange M Dembele

Service of Dialysis nephrology /Sikasso Hospital

Moussa Kanté

Service of Anesthsie-Rea/Hôpital de Sikasso

Moussa Diassana

Service de paediatrics/ Sikasso

Dadé B Haidara

Service of Urology/Sikasso. Hospital

INTRODUCTION

Acquired abnormal communication between the urinary and genital tracts. UGF are obstetrical in our context and result from a stagnation of labour in delivery. Whereas they follow urogenital instrumentation and surgical interventions in industrialized countries. [1, 2]. Obstetric fistula involves anatomical lesions whose location, size, number, and depth differ according to the length of time for labour stagnation and the therapeutic modality adopted for its management. There are many existing classifications and, although they are all based on the same parameters, namely: fistula size, location, locoregional trophicity and the possibility of affecting the continence system, none of them is unanimous.

The aim of this study was to assess the quality of urogenital fistula's surgical management in our department

MATERIALS AND METHOD

Study Design and Period

Descriptive retrospective study carried out in the urology department of Sikasso Hospital between June 1, 2020 and May 30, 2023.

Inclusion Criteria

All patients admitted and surgically managed for UGF during the said period and for which data records are available.

Cases of simple rectovaginal fistulas, different types of urinary incontinence, and neoplastic fistulas are not included in this study.

The diagnosis of UGF was made on the basis of gynaecological examinations under speculum combined with a test of methylene blue. The IVU/Uro CTscan or the Uretrocystoscopic examination were used exceptionally when we face difficulties. Hospitalization records and the surgical protocol registry are used to collect sociodemographic data, disease history, diagnosis and type of fistula, and surgical management of patients. Mean number of surgical attempts = 2.69 ± 2.48 (1-11 courses) with 47.25% of 1st hand and 35.2% were at least on their 3rd surgical attempt.

Surgical Management Outcome:

- Good: Closed fistula with possibility of spontaneous urination at the right time
- Acceptable: Anatomically closed fistula with occasional urine leakage
- Bad: Reopening of the fistulous orifice allowing urine to flow

Fistulas were classified according to HUC-Point G (Hospitalo-university center of Point G) classification (Table I). Data analysis was performed by SPSS 20

RESULT

We collected a total of 91 cases of UGF, accounting for 11.00% of our surgical activities. Mean age: 33.04 ± 11.15 (12-66 years). The majority of our patients, 97%, were housewives with no income-generating activities, 75% of whom came from remote area of Sikasso. Mean duration of disease: 79.20 ± 86.23 (2-480 Months) Average pads Number = 4.04 ± 1.41 (2-10 day). Out of

these, 83.50% are obstetric, 14.28% are iatrogenic fistulas and 2.20% are other types of fistula (Figure 1) (Table I).

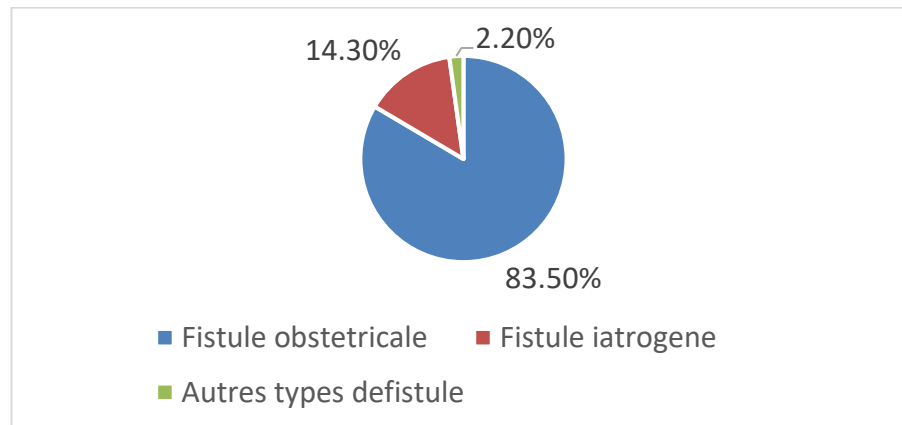


Figure 1: Distribution of patient according etiology

Tableau I: Anatomopathological characteristics of fistulas (classification HUC-Point G)

Type of fistula	Anatomopathological Characteristics	Effectif
TypeI:	Cloison Vésico-vaginale	21
TypeII:	Vesico-cervico-urethral fistula	32
TypeIIA:	Partial destruction of urethra	27
TypeIIAa	Uretro-vesico-vaginale	03
TypeIIAb	Désinsertion partielle	15
TypeIIAc	Total cervico-urethral Dysruption	09
TypeIIB:	Total urethral Destruction	05
TypeIII:	Trigono-cervico-utero-vaginale fistula	17
TypeIV:	wide Fistula + sclérose ou fistule mixte	08
	Vesicovaginal+Rectovaginale	01
	Vesicovaginal+ureterovaginale	02
	Fistule large+sclerosis	05
TypeV:	Upper tract fistula or iatrogenic	13
	Uretero-Vaginal Fistula	02
	Retrotrigonal fistula	11
Total		91

After a preoperative evaluation including: CBC, Rh grouping, serum creatinine, fasting blood glucose and PT. The surgical management was carried out under locoregional anaesthesia either in our routine activities or during the various free mass campaigns. Fistulas were addressed in the following ways. (Figure 2, 3, 4) (Table II).

Tableau II: Distribution of fistulas according surgical approach

	TYPE					Total
	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V	
Lower transvaginal voice	21	32	8	4	0	65
Upper abdominal voice	0	0	7	2	13	22
Mixte route	0	0	2	2	0	4
Total	21	32	17	8	13	91

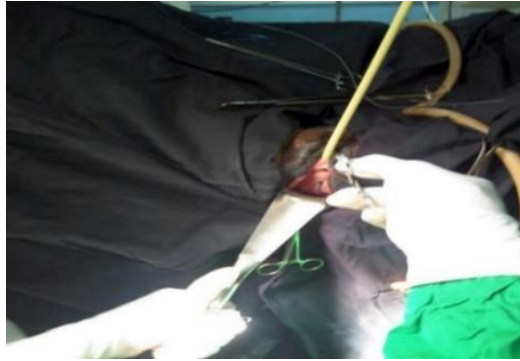


Figure 2: Type I fistula expelling methylene blue



Figure 3: Intraoperative image of Type II fistula

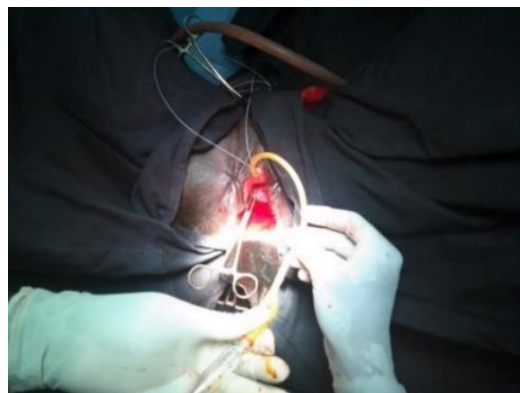


Figure 4: Type III fistula with meatus catheterization



Figure 5: Type IV fistula with wide vaginal sclerosis

Simple fistulorrhaphy with vesicovaginal splitting follow by separate sutura of vesical layer and vaginal layer for Type I, Type IIAa, Type IIAb fistulas as well as some Type IV fistulas. A urethrovesical anastomosis for Type IIAC. Type V fistulas are all approached from the upper route.: a two-plane fistulorrhaphy after doubling through a cystotomy for retrotrigonal fistulas and a ureterovesical reimplantation for ureterovaginal fistulas. Type III fistulas were approached either by vaginal or upper transvesical voice. However, they were associated with catheterization of the meatus in 4 cases. For type IV fistulas, the approach was mainly transvaginal, one with unilateral episiotomy, and the approach was mixed in two cases (Table II). The postoperative outcome was favourable in the majority (81.6%) of patients. totally we found 18.30% Postoperative complications (parietal suppuration, haemorrhages and infectious syndrome).

Tableau III: Distribution of patients according the number of surgical attempts

TYPE	Nombre		Total
	Groupe I: number of cures ≤ 2	Groupe II: number of cures ≥ 3	
TYPE I	17	4	21
TYPE II	18	14	32
TYPE III	7	6	13
TYPE IV	2	6	8
TYPE V	15	2	17
Total	59	32	91

The result of surgical management after three months was as follows:

- Good result for 77.05%; acceptable for 3.30% and bad for 18.9%.
- Type I and Type V have the highest success rates of 95.00% and 92.5% respectively
- Types III and IV have a fairly high failure rate of 70.0% and 50.0% respectively.

The number of surgical attempts per patient is low with type I and type V fistulas. While it is much higher in patients with type IIB fistulas.

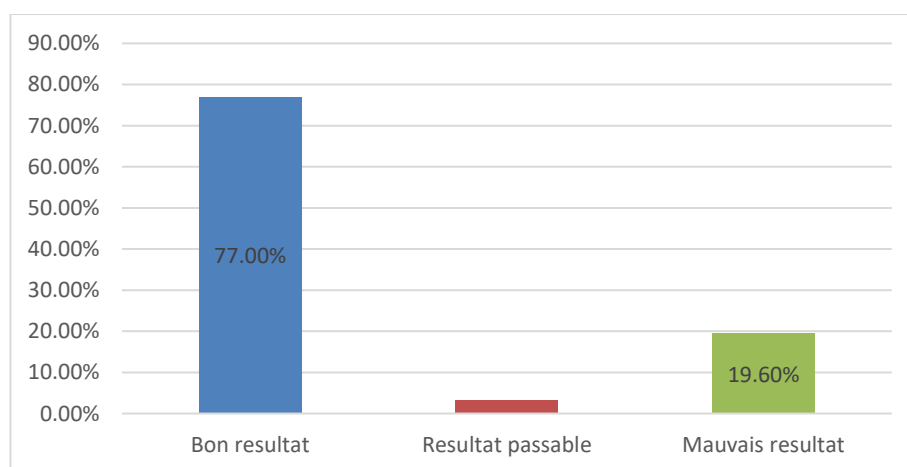


Figure 6: Distribution according the outcomes of surgical repair

We divided our patients into two groups: Group I with a number of surgical attempts ≤ 2 and Group II with number of attempts was ≥ 3 . The prognosis decreases while number of attempts

increases. Group I have a success rate of 84.40%, whereas While the group II barely reaches 70%. (Figure 7)

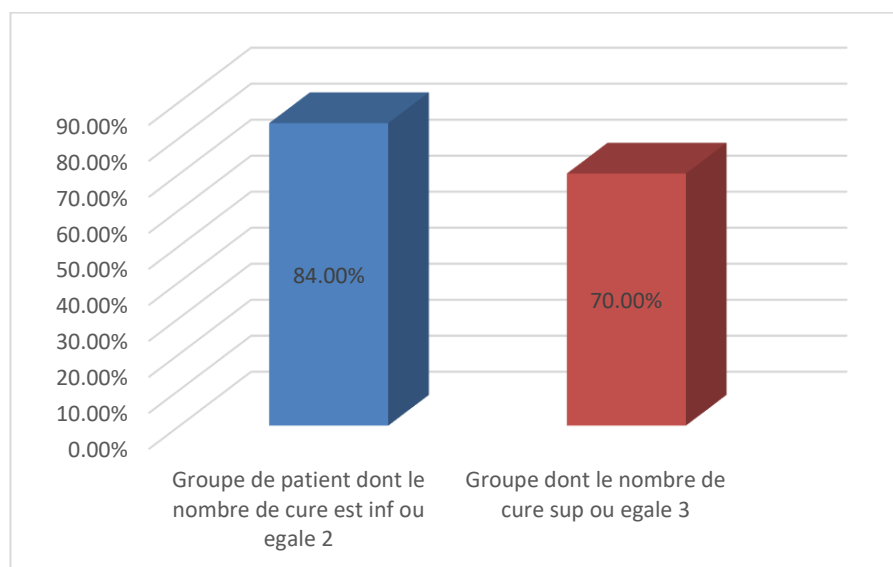


Figure 7: Therapeutic management outcomes according the number surgical attempt

DISCUSSION AND COMMENT

From an anatomopathological point of view, as in other African studies [3], the predominance of vesicovaginal fistulas of obstetric origin is evident in our study. The nature, extent and complexity of the lesions often depends on obstructed labour length of time and associated with a significant stillbirth rate. Whereas iatrogenic fistula with simple and well-circumscribed lesions, following a therapeutic procedure, is the one that remains relevant in countries where access to emergency obstetric care is less problematic. [4, 5]. Fistula surgery, especially obstetric one, remains a real therapeutic challenge for the surgeon regardless of his experience. But it remains an act of inestimable value, knowing that it allows the good lady to finally regain all her dignity, self-esteem and the joy of life that she had lost for a years.

Achieving the therapeutic goal is based on three essential elements:

- Establishment of a good closed urinary drainage system.
- Ensuring a good seal
- Bring together both general and local conditions for good healing.

Almost all of our patients, i.e. 100%, have benefited from the material and financial resources granted by international organizations or projects to ensure their care. This observation is also valid for A B Diallo et al [6] where the women benefited from care thanks to the support of the Engender health project. These confirm that obstetric fistula remains the prerogative of women from disadvantaged socio-economic backgrounds.

The HUC- Point G classification identifies both etiological entities, namely; obstetric and iatrogenic fistulas, each encompassing subtype, some of which, such as type III juxta trigonal, have not been individualized by current classifications. It also facilitates the choice of technique and surgical approach. Classic obstetric fistulas such as type I, type IIAa, type IIAb, type III and

type IV have benefited from a simple fistulorrhaphy according to camey [7] by vaginal route using chassar moir technique to expose fistula, traction on Alice's forceps placed around the external orifice or with the help of a beniquet successively pushing back the posterior and anterior commissures. While iatrogenic fistula type V, retrotrigonal or ureterovaginal are approached from the upper abdominal route. Our success rate is low compared to the Kelly J et al [8]; but it is almost similar to that of Inimgba NM et al [9], i.e. 78% closed fistula with the possibility of spontaneous urination. This could be explained by the complexity of the lesions in some of our patients and, as suggested by others, the high number of surgical attempts in the majority of patients. When it comes to the prognosis, according to the fistula type, our results confirm the literature [10, 11], type I and type V fistulas compared to type IV fistulas have a highest success rate. While large type III or trigonal juxta meatus fistulas have not only a poor prognosis, but they are often difficult to approach by vaginal voice, mainly due to difficulties related to movement limitation in a sclerotic vagina or the high risk of meatus trauma. Persistent urinary incontinence despite anatomical closure was found in 2.8% of our patients who had Type IIAC and Type III fistulas. This result is similar to that of Katie-Tayler et al [12].

It could be due to detrusor instability, reduced bladder capacity, or impaired external sphincter function. A urodynamic examination is necessary for an accurate diagnosis and appropriate management. Over the past 3 decades, many classifications have been developed [13, 14,15], without any of them being unanimous. The value of a classification lies in its inclusiveness; its ability to accurately describe pathological lesions, to facilitate decision-making in relation to therapeutic choice, and to predict the prognosis in terms of effort and success rate. This study proves that the classification of the HUC-Point G is certainly not perfect, but it may have magnified a certain value in the management of urogenital fistulas.

CONCLUSION

Obstetric fistula remains a real public health care problem. Although, we recognize the importance of the surgeon's expertise in their success; the type of fistula; loco-regional environment as well as the quality of the postoperative follow-up are all factors that can influence the outcome. The classification of the HUC- Point G is a much more inclusive classification that can help in decision-making for the choice of the approach and in the evaluation of the therapeutic prognosis. Research should continue in order to facilitate the development of a standard classification that would ensure good codification, exchange on a sincere and objective basis

Conflict of Interest

The authors have declared no competing interest

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