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Epidemioclinical, Etiological and Therapeutic Aspects of Urogenital Fistula

Salifou I Traore[1], Ousmane Dembélé[1], Kateneme S Ouattara[1], Soumaila A Traore[3], Makan Bouaré[1], Oumar Berthé1, Siaka Coulibaly[1], Aly B Diallo[2], Bathio TRAORE[2], Moussa Kanté[4], Sedou Koné[4], Moussa DIASSANA[2], Abdoulaye Sanogo[5] and Ange M Dembélé[5]

[1]*Service of Urology, Sikasso Hospital, Sikasso city, Mali.*

[2]*Service of General Surgery, Sikasso Hospital, Sikasso city, Mali.*

[3]*Service of Gynaecology and Obstetrics, Sikasso Hospital, Sikasso city, Mali.*

[4]*Service of Anaesthesia Resuscitation, Sikasso Hospital, Sikasso city, Mali.*

[5]*Service of Radiology, Sikasso Hospital, Sikasso city, Mali.*

***Correspondence:**
Salifou I Traore, Service of Urology, Sikasso Hospital, Sikasso city, Mali.

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ABSTRACT

Introduction: *Our objective was to analyse the epidemioclinical, etiological, and therapeutic aspects of genitourinary fistula.*

Materials and Method: *Descriptive and retrospective study conducted in Sikasso Hospital's service of urology between February 1, 2024 and February 28, 2026.*

Results: *Totally 21 obstetric fistula patients, representing a prevalence of 3.50%. Average age of our patients was 30.04 ± 8.13 (13-57 years). They are not engage in any income-generating activities; 90.00% still live with their spouses, while 10.00% are either divorced or abandoned the marital home. The vast majority (98%) are illiterate, coming from rural communes of Sikasso (71.42%) as well as neighbouring countries, Ivory Coast (19.04%) and Burkina Faso (9.52%), respectively. Different types of fistulas were found: 4 cases of iatrogenic fistulas and 17 cases of obstetric fistulas, out of those obstetric fistula 6 cases belong to type III according CHU-Point G classification and. 85.70% of new born were found dead. The majority of our patients were 1st hand fistulas and their postoperative outcomes was successful in the majority (85.70%) of patients.*

Conclusion: *Obstetric fistula remains a real public health care problem. Our political and public health authorities must continue efforts in providing emergency obstetric care; improving the capacity of personnel in managing high-risk pregnancies; promote and support day by day surgical management.*

Keywords

Urogenital fistula, Obstetric fistula, CHU Point G Classification, Etiological diagnosis, Surgical management.

Introduction

Urogenital fistula is an acquired pathological communication between the urinary, genital, and often digestive tracts. It can occur following ischemic necrosis caused by prolonged compression of soft tissue between the foetal presentation and the pelvic bones during a dystocic delivery, a surgical or radiological iatrogenic trauma. This pathology, with its corollary of loss of control over urine and/or faeces, leads to severe consequences physically, psychologically, and socioeconomically, and makes community life difficult.

WHO estimates that every year 50,000-100,000 women develop obstetric fistula, the majority of which are found in sub-Saharan Africa, with an incidence of 1.24 per 1,000 births. A clear

correlation between the incidence of obstetric fistula and perinatal stillbirth has been demonstrated by studies [1,2]. This highlights the shortcomings in the implementation of reproductive health policy and the provision of emergency obstetric care.

The aim of this study was to analyse the epidemiological, clinical, etiological, and therapeutic aspects of patients suffering from fistula.

Materials and Methods

Descriptive and retrospective study conducted in the urology department of Sikasso Hospital during the period from February 1, 2024 to February 28, 2026.

Population: All patients admitted and treated because of different urological disease in our department during the same period.

Inclusion: Patients presenting with a urogenital fistula who have benefited from surgical care and whose records are available.

The hospitalization records of patients operated for urogenital fistula and the operative protocol register were used to collect data regarding age, origin, obstetric history, causal pregnancy and delivery, the anatomopathological aspect of the fistulas, the diagnosis according to the CHU-Point G classification, surgical management modalities and its outcomes.

Data recorded and analysis was performed using SPSS 21 software.

Results

We collected a total of 21 female patients suffering from urogenital fistula, representing a prevalence of 3.50% across all our surgical activities. The average age was 30.04 ± 8.13 (13 -57 years).

The average age at first marriage is 16.00 years, and 71.42% of our patients were married before their 18th birthday. These patients do not engage in any income-generating activities; 90.00% still live with their spouses, while 10.00% are either divorced or abandoned the marital home.

The vast majority (98%) are illiterate, coming from rural communes and villages of Sikasso at 71.42%, as well as neighbouring countries: Ivory Coast and Burkina Faso 19.04% 9.52% respectively (Table 1). Urine leakage in a standing or lying position, often with preservation of spontaneous urination, was the main reason for consultation. The diagnosis and anatomopathological assessment of the fistulas were made possible through a gynaecological examination combined with a methylene blue test.

Different types of fistulas were found: 4 cases of iatrogenic fistulas and 17 cases of obstetric fistulas, including 6 cases of trigono-cervico-utero-vaginal fistulas (Photo 1) (Table 2). The majority of patients, accounting for 70.53% of the total, had obstetric fistulas following an obstructed labour lasting more than 48 hours with 85.70% of stillborn rate.

Table 1: Sociodemographic characteristics of urogenital fistula patients.

Data	Effects	Percentage
Age		
Age at 1st Marriage ≤ 18	15	71,42%
Age 1er Marriage >18	06	28,57%
Provenance		
Sikasso remote area	15	71,42%
Ivory coast	04	19,04%
Burkina Faso	02	09,52%
Education level		
Illiterate	19	90,47%
Primary	02	9,52%
Secondary	00	00
Socioeconomic status		
Practice rewarded job	00	00
Full houses wife (no rewarded job)	21	100%
Matrimonial Statuts		
Still Married	19	90,42%
Divorced / Marital abandonment	02	09,52%
Total	21	100%

Table 2: Anatomopathological characteristics of fistula according CHU-Point G classification.

Types of Fistula	Anatomopathological characteristics	Effects
Type I :		
Type II :	Cloison Vesico-vaginal	04
TypeIIA :	Vesico-cervico-urethral fistula	05
TypeIIAa	Partial destruction of urethra	05
TypeIIAb	Uretro-vesico-vaginal fistula	01
TypeIIAc	Partial cervico-urethral Dysinsertion	02
TypeIIB:	Total cervico-urethral Dysruption	02
Type III :	Total urethral Destruction	00
	Trigono-cervico-utero-vaginale fistula	06
Recto-vaginal Fistula	Rectovaginal Fistula ou Perineal Tear	02
Type V:	Upper tract fistula or iatrogenic fistula Uretero-Vaginal Fistula 02 Retro trigonal fistula 02	04
Total		21

The diagnosis of iatrogenic fistula was made for 4 patients whose trauma was caused by caesarean section. Surgical management of the patients was carried out under loco-regional anaesthesia as part of our routine activities. The fistulas were approached as follows (Table 3).

Table 3: Voices of surgical repair according the type of urogenital fistula.

	Type de fistule					
	TYPE I	**TYPE II**	**TYPE III**	**FRV**	**TYPE V**	
Lower Transvaginal Voice	4	5	1	2	0	12
Upper abdominal Vo	0	0	5	0	4	9
Total	4	5	6	2	4	21

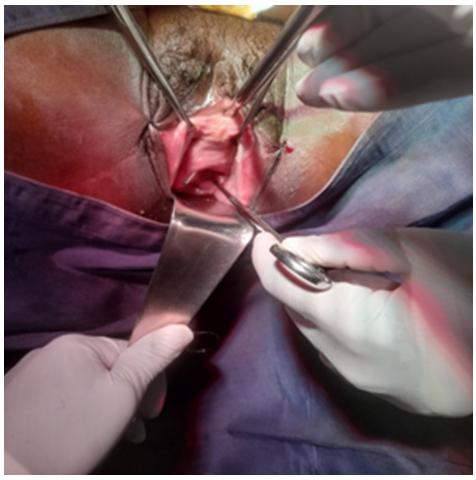

Photo 1: Operative image of type III fistula surgical Repair by intra vaginal approach.

The postoperative complications have been recorded for 3 patients, accounting for 14.30% (parietal suppuration + infectious syndrome). 76.20% of our patients had primary fistulas. The outcomes of surgical management after three months follow-up:

Successful for the majority (85.70%) of patients. All of them have been discharged continent with closed fistula. 9, 52% of patients were not continent despite closed fistula and the remaining 9, 52% of fistula failed to close and continuous to leak urine.

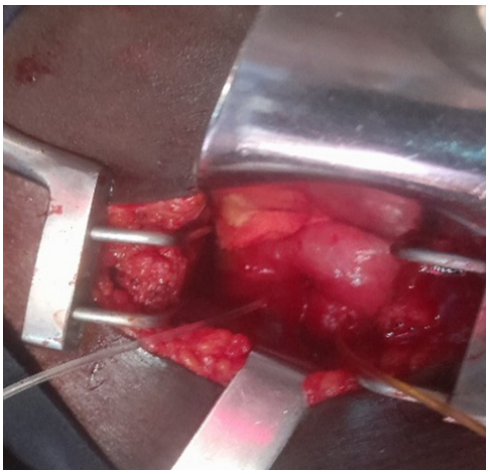

Photo 2: Trans-vesical surgical repair of type III Fistula located between two catheterised meatus.

Discussion

The overall prevalence of urogenital fistulas in our activities is 3.50%, which remains relatively low compared to that reported in our previous studies [3,4]. This could be explained by various reasons: an underestimation, especially since our system for collecting obstetric fistulas at the community level has shortcomings; the reduction or even cessation of mass campaigns; the positive impact of measures adopted under the implementation of the national strategy to combat this scourge. Obstetric fistula constitutes a real problem of neglected public health and a social justice issue, as it mainly affects young illiterate girls with no source of income, from remote rural municipalities far from reference hospital facilities. It is nothing other than one of the most painful and demeaning consequences, among many others, of neglected labour stagnation [5-7]. It is a pathology that has practically disappeared in Western settings [8]. Whereas about 2 million women live with obstetric fistula in our developing countries, and each year 30,000-130,000 new cases are recorded in sub-Saharan Africa [9]. Our study, as well as others with a clear predominance of obstetric fistulas, are in accordance with the literature [10]. This could be explained by the perpetuation of certain harmful traditional practices, namely early marriage, home births; the difficulties in monitoring pregnancies and in accessing emergency obstetric care; the lack of continuous training for staff and the shortage of qualified personnel. Furthermore, the high rate of new-borns found dead at birth and the presence of a significant proportion of type III fistulas in this series reinforces this observation.

It is a trigono-cervico-utero-vaginal fistula whose internal opening of the fistulous tract is located on or above the inter-meatal line, but the external opening opens into the uterine cervix. Unlike other obstetric fistulas, the latter would result from a rapid and forced expulsion of the foetal presentation through a poorly prepared uterine cervix. Regarding its surgical management, the trans vesical route with secured meatus catheterisation is most often preferred; because the transvaginal approach may expose to the risk of iatrogenic ureteral injury. Several types of anatomopathological classification exist concerning the identification of urogenital fistulas [11,12]. Knowing that none of them is unanimously accepted, we opted for the CHU-Point G classification. Regardless of the classification, they are all based on anatomical location, the quality of the surrounding tissue, and other associated lesions, namely a rectovaginal fistula, urethro-cervical involvement, or sphincter involvement.

The outcome of the therapeutic management of urogenital fistulas depends on certain factors, such as the quality of the care provided, including the surgeon's skill, the type of fistula, and the number of previous surgical attempts. With a high success rate and a significant proportion of first hand fistulas in our sample, we can say that our results are in accordance with the literature.

Conclusion

Despite an apparent decrease in its incidence, obstetric fistula remains a real public health problem in Sikasso. To overcome this scourge, political and public health authorities must continue efforts in providing access to facilities delivering emergency obstetric care; improving the capacity of personnel in managing high-risk pregnancies; and intensifying education and awareness on prevention through various communication channels. In view of the decreasing number of partners and the fact that these women suffering from fistulas are also victims of our health care system, government should profit available fistula surgeon's capital in taking responsibility to help for surgical management and socio-economic reintegration.

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