

## Urogenital Fistula: Epidemioclinical and Etiological Aspects

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**ABSTRACT**

**Introduction:** The objective of this study was to analyse the epidemiological, clinical and etiological aspects of urogenital fistula in our department.

**Materials and Method:** Retrospective descriptive study was carried out in our urology department between 1 June 2020 and 30 June 2022.

**Result:** Totally 71 cases of urogenital fistula have been collected. The mean age was  $33.41 \pm 11.09$  (15 - 66 years). The main (98.6%) clinical symptom was continuous urine leakage, which appeared within 2-7 days after normal or caesarean child delivery. Fistula due to obstructed labour is the predominant aetiological, accounting for 85.91%. The majority of patients were victims of this accident during their 1st childbirth. They were generally homemakers, illiterate and coming from remote area Mean childbirth labour duration:  $42, 33 \pm 21, 49$  (12-120 hours). This accident was associated to 92, 53% of stillbirth rate and lead to 7, 04% of divorce.

**Conclusion:** Struggles against this pathology passes necessarily through promoting girls socio-economic condition and education, raising awareness against harmful religious and traditional practices.

**Keywords**

Urogenital fistula, Obstetric fistula, Obstructed labour, Urine leakage.

**Introduction**

Urogenital fistula UGF is an abnormal communication acquired between the urinary and genital tracts. This disease has multiple aetiology and they are different according to health care and socio-economic conditions. Urine leakage, the main manifestation of this pathology and often associated with stool loss, is in our context the result of necrosis of soft tissue caused by prolonged compression during stagnation of labor while they are mainly of iatrogenic

origin in industrialized countries [1,2]. According to the WHO [3], poverty and illiteracy are fertile ground for the development of this pathology. Sub-Saharan Africa, with an incidence of 1-4 per 1000 deliveries, is considered one of the areas most affected by this scourge. In addition, the harmful psychological consequences, socio-economic and community difficulties due to the fact that these victims emit a foul and ammoniacal smell constitute a real obstacle to their fulfilment. The objective of this study was to analyse the epidemiological, clinical and etiological aspects of urogenital fistula in our department.

## Materials and Method

We carried out a retrospective descriptive study in the urology department of sikasso Hospital between 1 June 2020 and 30 June 2022.

**Inclusion criteria:** All patients admitted and managed for UGF during the said time period and whose records are available. Not all cases of isolated rectovaginal fistulas, urinary incontinence and neoplastic fistulas were included in this study.

Patient's hospitalization and their operating protocol register were used to collect information related to following aspects: socio-demographic; diagnosis and types of fistula, clinical manifestations, disease duration of course and consequences; follow-up and route of delivery for causal pregnancy, surgical history. Data analysis was performed by SPSS 20.

## Result

### Socio-Demographic Aspects

We collected totally 71 cases of urogenital fistula, a prevalence of 11.83% across all our surgical activities. The mean age was  $33.41 \pm 11.09$  (15 - 66 years). Group age 25 - 40 was the most representative, accounting for 47.88% of the workforce. They were mainly housewives, 97.2% illiterate and 75% were from rural communes of different sanitary districts of Sikasso, the rest comes from the urban city of sikasso as well as from RCI (Figure 1).

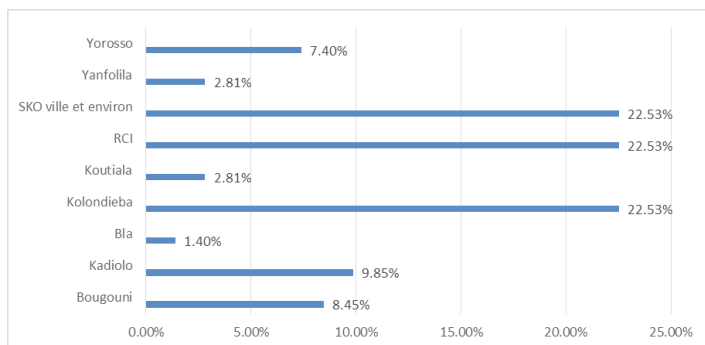


Figure 1: Distribution of patients according their provenance.

### Aetiological Aspects and Risk Factors

Fistula due to obstructed labour is the predominant aetiological, accounting for 85.91%. They were followed by iatrogenic fistula due to gynec-obstetrics surgery (Figure 2).

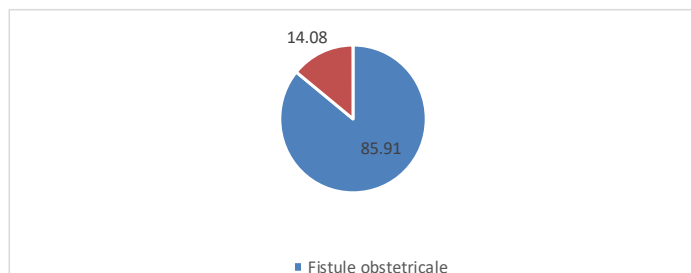


Figure 2: Distribution according aetiology.

A large proportion (38%) of patients were victims of this accident during the 1st delivery. While 29.5% were large multiparous (Figure 3). Out of 41 patients, twenty-four (58.5%) of our patients had a height  $\leq 1.55m$ .

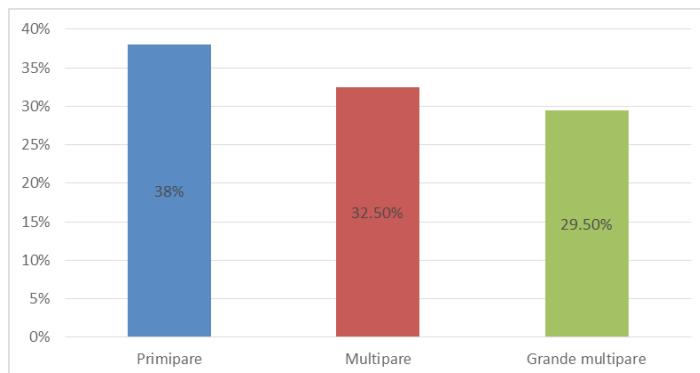


Figure 3: Distribution of patients according parity.

### Causal Pregnancy

Out of 71 patients, only 38 patient (53%) performed correctly antenatal follow up. The rest of patients did not receive any antenatal care during causal pregnancy. Mean duration of labour for childbirth was  $42.33 \pm 21.49$ (12-120Hours)

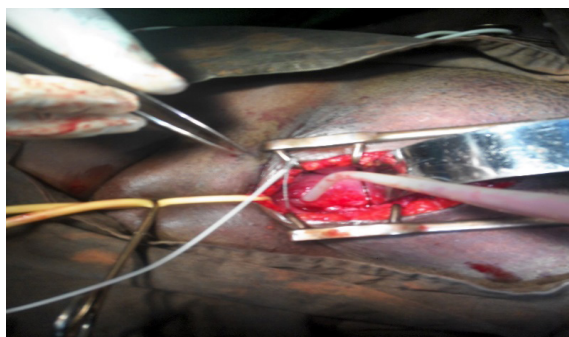
### Clinical manifestation/Diagnosis

The main (98.6%) clinical symptom was continuous urine leakage in standing or lying position which appeared within 2-7days after normal vaginal voice child delivery or caesarean section Mean duration of disease was  $76.56 \pm 78.30$  (2-324Months).

The diagnosis and pathological assessment were established largely through a complete gynaecological examination performed under loco regional anaesthesia combined with a methylene blue test. The use is made to imaging upper urinary tract intravenous pyelography IVP, computed tomography CT or urethrocytostcopy in case of difficult (Figure 4-6).



Figure 4: Image of type I fistulae evacuating blue methylene.



**Figure 5:** Intraoperative image of type III fistula cystotomy, meatus catheterisation.



**Figure 6:** IVU image of type V fistula, nephrogram showing dilatation and delay in evacuation.

### Socioeconomic Impact of Fistulae

As shown in (Table 1), UGF can lead to serious socio-economic consequences, physical and neurological disabilities. Average number of pads per day:  $3.93 \pm 1.36$  (2-10 pads /day).

**Table 1:** Socio-economics consequences and neurologics aftermaths.

Matrimonial status	Effectifs	Pourcentage
Single	2	2,8
Divorced /Separated	5	7,04
Married	62	87,32
Widow	2	2,8
Total	71	100%
New Born state		
Stillbirth	62	92,53%
Life birth	5	7,46%
Total	67	100%
Neurologics aftermaths		
Neuromoteur disorders such as foot drop	3	4,22%
Neuropsychics distress	1	1,40%
Absence of associated neurologic disorder or aftermath	67	94,36%
Total	71	100,0

### Discussion and Comments

Urogenital fistula especially that of obstetric origin, remains a frequent pathology in our activities. Given the shameful nature of this disease and the fact that home or traditional unskilled childbirth are still relevant, it would be difficult for us to know its real prevalence.

Despite the fact that there has been a decrease in its prevalence in our activities, compared to our previous study [4], our hospital prevalence is always higher than that of other teams [5].

Unlike the European series, the dominant form both in our study and in other African series remains the obstetric fistula whose main aetiology is ischemic necrosis secondary to a prolonged compression of the soft tissue between presentation and the pelvic bones during a dystocic delivery [5,6]. Moreover, the present study proves that in addition to being the cause of fistulas, this stagnation of labour would also be at the root of high rate stillbirth.

Although most of our patients were victims of this pathology during their 1st child delivery. However, our mean age is high compared to others sub-Saharan series [6,7]. Something that could be explained by the fact that some of our patients have taken a long time to request care and others were in their 5th or even 9th surgical cure. The analysis of risk factors and aetiological aspects in our series corroborates with the literature [8,9]. There are traditional risk factors such as early marriage, low-income status and illiteracy, lack of prenatal follow-up; home or traditional attendance deliveries and difficulties in accessing qualified emergency obstetric care.

Like other studies [10,11] our results prove that ladies who suffer from obstetric fistula, which remains the predominant form in our context, were poor with no rewarded job and coming from promote area. They may suffer also for serious psychological, socioeconomic and neurological consequences. Concerning marital status, compared to other teams [12], as consequences, we have a slightly low divorce rate. Even though that many of them, although living under the roof of their husbands, suffer because of not being able to take part to religious activities, different community events and to fulfill their conjugal duty.

### Conclusion

Obstetric fistula remains a real health care problem despite the commendable efforts of political and health authorities. The struggles against this pathology must continue and pass necessarily through promoting girls' socio-economic condition and education, raising awareness against harmful religious and traditional practices. Facilitating access to family planning tools and antenatal follow-up services; the rapprochement of structures providing emergency obstetric care and continuous training of staff could also contribute in fighting against these phenomena.

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