

## Original Research Article

## Assessment of Three Campaigns to Support Women Victims of Obstetric and Non-Obstetric Fistula at the Fousseyni Daou Regional Hospital in Kayes

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**Abstract:** The purpose of this work was to evaluate the results of three campaigns to support women victims of obstetric or non-obstetric fistulas. This is a retrospective and descriptive study of a series of 58 patients operated on during three campaigns for the management of urogenital and rectovaginal fistulas (February 2016, January 2017 and June 2021). All women with urogenital or rectovaginal fistula after questioning and physical examination were included. Fistula concerned 94.8% of housewives. At the time of diagnosis, 41.4% of our fistula patients were between 11 and 25 years old, with an age at first marriage of 11 to 20 years in 94.8%. Married women accounted for 79.3%. The births took place in 41.4% at home and were spontaneous in 55.2%. The repair techniques used were fistulorrhaphy by low or high way in 91.4%. The healing rate of closed and dried fistula was 62.1%.

**Keywords:** Obstetric and Non-Obstetric Fistula, fistulorrhaphy, diagnosis.

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## INTRODUCTION

Urogenital fistula is an entity of obstetric fistula, it constitutes a real public health problem in Africa by its medical, economic and psychosocial repercussions [1-3]. Virtually eradicated in developed countries, it is still relevant in developing countries. Obstetric fistula is defined as a solution of continuity between the urinary tract and the vagina (vesico-vaginal fistula) or between the rectal tract and the vagina (rectovaginal fistula) [4, 5].

It is estimated that approximately 2 to 3.5 million women suffer from urogenital fistula in developing countries, with 50,000 to 100,000 new cases each year [4, 5].

According to the World Health Organization (WHO), around 830 women die every day worldwide from preventable causes related to pregnancy or childbirth [6]. For every woman who dies, 20 to 30 women suffer a short- or long-term illness or disability, including damage to the genitals, infertility, or serious postpartum disability such as uro-genital fistula (FUG) [7].

In Mali, approximately 600 new cases are rewarded per year [27].

The aim of our work was to evaluate the results of three campaigns to support women victims of obstetric and non-obstetric fistula at the Fousseyni DAOU regional hospital in Kayes.

## METHODOLOGY

This is a cross-sectional study of a series of 58 patients operated on during three campaigns for the management of obstetric or non-obstetric fistulas (February 2016, January 2017 and June 2021) at the surgery and specialty department. surgery at the Fousseyni DAOU hospital in Kayes.

The women had consulted after an awareness campaign carried out by the media (radio) in the seven circles of Kayes by Non-Governmental Organizations (NGOs).

Data collection was done through a pre-established questionnaire whose data were collected from the interrogation and physical examination of patients.

The classification used was that of our Pr Ouattara *et al.*,

Type I: fistula of the vesicovaginal septum  
 Type II: vesico-cervico-urethral fistulas (fistula of the bladder neck)

- Type IIA: without destruction of the urethra
- Type IIAa: cervico-urethro-vaginal fistula
- Type IIAb: partial cervico-urethral disinsertion
- Type IIAc total cervico-urethral disinsertion

• Type IIB: With destruction of the urethra  
 Type III: trigono-cervico-utero-vaginal fistulas  
 Type IV: Type IV: complex fistulas (rectal and bladder, vaginal fibrosis, significant loss of substance)

Type V: high fistulas (retro trigonal)

- o Vesicovaginal
- o Vesico-cervico-uterine
- o Vesico-uterine
- o Uterovaginal

**Inclusion Criteria:** All women with a urogenital or rectovaginal fistula after a history and physical examination.

Fistula healed = closed and dried

Closed fistula with incontinence = closed fistula with sphincter insufficiency.

Residual fistula = considerable reduction in the diameter of the not completely closed fistula.

Unclosed fistula: absence of wound healing after surgical repair.

**Non-inclusion Criteria:** These are other forms of loss of urine following obstructed labor (cystocele, stress urinary incontinence)

During the study period, 58 patients with obstetric or non-obstetric fistulas were diagnosed and operated on. Fistula surgery represented 18.7% of our activities in the operating room (926/4954 operated patients). The average age of the patients was 32 years with extremes of 11 and 70 years. The incidence of new cases at the Fousseyni DAOU hospital in Kayes is 21 cases per year.

The variables studied were epidemiological, clinical and therapeutic.

## RESULTS

The reasons for consultation of our patients were urinary leakage 89.7% and stool 10.3%. Housewives accounted for 94.8% of the.

**Table I: Distribution of patients according to age group**

Tranche d'âge	Fréquence	Pourcentage
entre 11 et 25 ans	24	41,4
entre 26 et 35 ans	12	20,7
entre 36 et 45 ans	15	25,9
entre 46 et 55 ans	4	6,9
entre 56 et 65 ans	2	3,4
plus de 65 ans	1	1,7
Total	58	100

Married women made up 79.3% and 74.1% were in their marital household. By education level, out-of-school patients accounted for 72.4%.

In the surgical history, cesarean section was 32.8% followed by fistula cures in 31%. Vaginal sclerosis existed in 12.1% of patients. The primiparous were 51.7%.

Twenty-nine point three percent of the patients had a duration of labor greater than or equal to 72 hours and 86.2% of the children resulting from these obstructed deliveries were stillborn.

In the series, the etiology of the fistula was obstetric in 94.8%, iatrogenic in 3.4% and traumatic in 1.7%. Caesarean section accounted for 32.8% of surgical history. Caesarean section accounted for 32.8% of surgical history.

**Table II: Distribution of patients according to the anatomo-clinical type of fistula**

Type de fistule	Effectifs	Pourcentage
Type I	7	12,1
Type II	12	20,7
Type III	17	29,3
Type IV	6	10,3
Type V	10	17,3
Fistule rectale	6	10,3
Total	58	100

Twenty-nine point three percent of the fistulas were classified as type III. In the approach to the fistula, the vaginal route was used in 72.4%. Spinal anesthesia was used in 98.3% of cases. For fistula repair, fistulorrhaphy was the most used surgical technique is 91.4%.

The average length of hospitalization was 63.8%. The ablation of the probe intervened at two weeks in 53.4%. A surgical complication was noted in one case or 1.7%.

**Table III: Distribution of patients according to treatment outcome**

	Effectifs	Pourcentage
Fistule fermée et séchée	36	62,1
Fistule fermée avec incontinence	9	15,5
Fistule résiduelle	9	15,5
Fistule non fermée	4	6,9
Total	58	100,0

The fistula was closed and dried in 62.1%.

## DISCUSSIONS

Contrary to what one might hope, vesico-vaginal fistulas have no tendency to disappear in our country, where they remain a real public health problem, especially in rural areas. Statistical data concerning the extent of this condition are difficult to determine with certainty given the absence of a possible multicenter epidemiological investigation for this hidden condition.

In Mali, approximately 600 new cases are recorded each year [27]. Out of a total of 187 cases (2013-2021) we had an incidence of 21 new cases per year at the Kayes regional hospital. This incidence is lower than that of BENCHEKROUN [8] who found an incidence of 33 new cases per year between 1969 and 1985 based on 600 cases.

In the genesis of “true” obstetric vesico-vaginal fistulas, the most incriminated factor is obstructed labor in young parturients with a narrow pelvis [9-12]. This is what Barroux [9] called the childbirth of “women-children”.

This factor has been reported by several authors (17, 25, 26) even if it does not seem to explain all the causes of fistulas.

Joseph Bulanda Nsambi *et al.*, [13] in Congo found an average age of fistulae during fistula repair of 27.9 years and 46.2% of them were under 25 years old, 16.9% being teenage girls. When the fistula occurred, this average age was 23.2 years and more than 65% of fistula patients were under 25 years old, 40.1% being adolescents. Komanda Likwekwee *et al.*, [14], found elderly people between 20 - 34 years old, i.e. 45.61%. These results are similar to the ages of the patients in our series where 94.8% were married in the age range of 11 to 20 years and 41.4% of our fistula patients were aged between 11 and 25 years.

In our study, 48.3% of patients were in their first pregnancy. Tebeu found that 31 to 66.7% of fistula

patients were primiparous when treated [16]. Dekou, in his study conducted in Ivory Coast, reported 44.28% of primiparous [17]. Thus, this predominance of primiparous seems to be in agreement with certain data from the literature. Fifty-five point two percent of fistula patients had given birth spontaneously and 44.8% of deliveries ended in an intervention (most often cesarean section).

The average duration of work was 48 hours with extremes of 12 to 72 hours. It was 2.25 days in Joseph Bulanda Nsambi's study [13] and 99.6% of patients had spent 24 hours or more in labour. This explains the role of dystocia in the genesis of the fistula. In our study, 86.2% of children from these obstructed deliveries are stillborn. Joseph Bulanda Nsambi *et al.*, [13] found 93% stillbirths. It was 96% in Holme's study [15]. Iatrogenic fistulas after gynecologic-obstetric intervention were 3.4%.

Despite the efforts of the Malian state to bring health care structures closer to the populations, certain practices of society remain. Forty one point four percent of patients had given birth at home. This rate is higher than that of Dalenda Chelli *et al.*, [18] in Tunisia, 15%; It is lower than the rate of Joseph Bulanda Nsambi [13] where 70.7% of patients gave birth at home.

At the time of disease diagnosis 79.3% of our patients were married, 15.5% were divorced and 5.2% were widows. In Joseph Bulanda Nsambi's study, [13] 71.5% of fistulants were divorced; 17.8% for Jokhio (in Pakistan) [19], 19% for Washington (in Rwanda) [20], 32.4% for Kaboré (in Burkina Faso) [21]. This difference in the proportion of married women is difficult to explain, but could be linked to differences in culture and religious beliefs in the different studies.

Regarding the level of education of our patients, 94.8% were housewives and 72.4% were uneducated. Absence of level of education was 94.7% in the study of Joseph Bulanda Nsambi [13]; 90.5% in Jokhio's study [19] and 92.5% in Kaboré's [21].

The level of education being an indirect reflection of the socio-economic level, it appears that the low socio-economic level and the low level of education are characteristics of the fistula patient and this finding is also unanimously reported by most authors [16, 21]. Uneducated or poorly educated women are often deprived of the necessary information on the importance of prenatal consultations and childbirth in a health facility.

On the etiological and anatomic-pathological level, an indisputable divergence persists between the European series where the fistulas are often simple and essentially of surgical origin (82%), or radiation (6%) [22, 23] and our series where the obstetric etiology exceeds 90% (94.8% in our series). Indeed, prolonged ischemic compression of the bladder floor and rectum by the enclaved fetal head during labor lasting several days leads to tissue necrosis, a source of fistula.

According to the origin of the fistulae, the circle of Kayes represented 25.9% followed by that of Kéniéba with 22.4% and almost all of these patients come from rural areas. This distribution can be explained for the circle of Kéniéba by the isolation of certain villages from the health structures. Moreover, poverty is also a reason for some pregnant women not to attend prenatal consultations, which exposes them to obstetric complications.

The circle of Kayes is sufficiently covered by community health centers and these centers do not suffer from any attendance problems. The prevalence of fistula could be explained by the lack of professionalism of some health workers who take care of parturients. The latter only refer them to the complication stage.

Leakage of urine concerned 89.7% of patients and that of stool 10.3% of patients. First-hand fistulas, i.e. fistulas operated for the very first time, accounted for 17.2% and those operated several times were 82.8%.

In the population studied, 82.8% of patients had had their fistula for an average of 1 year. In Joseph Bulanda Nsambi's series [13] 33.5% of patients had had their fistula for 5 years or more and the mean age of the fistula was  $4.76 \pm 4.97$  years (extremes: 6 months and 34 years). This delay in taking charge could be explained by several reasons:

The stigmatizing nature of the pathology pushing patients into isolation; The long clinical tolerance of the disease since it does not immediately involve the vital prognosis;

The lack of information on the possibilities of surgical management of the condition, forcing patients to resort to traditional treatment;

The lack of financial means to meet the expenses of care, The absence of an integrated policy for the prevention and management of obstetric fistulas

According to the state of trophicity of the vagina, 12.1% of the patients presented with a sclerotic vagina.

The type III of the anatomic-clinical classification of Pr OUATTARA et al was 29.3%. For the management of patients, spinal anesthesia was used in 98.3%

Access to the fistula by the vaginal route was used in 72.4% and concerned fistulas which sat on the bladder neck, the urethra, the vesicovaginal septum and certain fistulas close to the cervix when it was possible to intubate the ureteral meatus. This way seems to us the best because it gives a good operating comfort, a direct access to the lesions of the cervix and the urethra. The upper route was used on ureteral fistulas, trigonal or retro-trigonal fistulas and vesicouterine fistulas that could not be exposed vaginally.

The repair techniques used were fistulorrhaphy via the low or high route in 91.4%; urethroplasty using flaps taken from the lips of the vulva 5.2% and sometimes uretero-vesical reimplantation 3.4%.

The closed and dried fistula healing rate was 62.1%, this rate is lower than that of Joseph Bulanda Nsambi [13] in Congo 86% and also that of Holme (72.9%) [15]. This decrease could be explained by the small size of our sample on the one hand and by the presence of vaginal sclerosis in 12.1% of fistula patients on the other hand. It is higher than the success rate of Dalenda Chelly [18] 52.4%.

The success rate after fistulorrhaphy varies from center to center and is determined by many factors such as the site of the fistula, degree of healing, previous repair attempts, fistulorrhaphy technique and expertise. Surgeon, equipment and post-operative nursing care among others.

Patients were hospitalized for an average of 2 weeks, i.e. 63.8% of hospitalizations. And the removal of the probe took place 24 hours before their release.

Only one case of surgical complication was noted; it involved ligation of the ureteral meatus on a type III fistula which was approached vaginally. The patient was seen again the next day and had benefited from bilateral ureterovesical reimplantation.

## CONCLUSION

Our study shows that fistula affects young women, most often primiparous women of low socio-economic level who have not attended school, these are women married in their adolescence who have



experienced an unassisted and dystocic parturition ending in a stillbirth. Most of the time.

The management of fistula is surgical; the success rate is variable and depends on the type of lesion, the state of trophicity of the vagina and the experience of the surgical team and postoperative care.

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