

# Indications and Prognosis of the Hysterectomy Operation in the Obstetrics and Gynecology Department at the University Teaching Hospital of Ouagadougou (UTH-YO), Burkina Faso

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## Abstract

**Objective:** To describe the indications and the prognosis of the hysterectomy operation in the obstetrics and gynecology department at the UTH-YO, Ouagadougou, Burkina Faso. **Methodology:** It has been a descriptive cross-sectional study over a period of 18 months from 1 January 2014 to 30 June 2015 in the obstetrics and gynecology department of the UTH-YO. The variables studied were demographics, clinical and prognostic aspects. **Results:** During the study period, we recorded 128 cases of hysterectomies including 20 obstetric causes (15.62%) and 108 gynecological cases (84.38%). The incidence of hysterectomy was 3 per 1000 births. Gynecological indications were dominated by uterine fibroids (47.3%), genital prolapse (20.4%), cervical dysplasia (9.3%) and functional bleeding (7.4%). Obstetric indications were dominated by uterine ruptures (60%), the postpartum haemorrhage (15%). The prognosis of obstetric indications was marked by 5 cases of bladder lesions or a morbidity rate of 3.9% and 4 deaths that to say a fatality rate of 3.1%. **Conclusion:** The prognosis of hysterectomies should be improved with further training of health workers in surgical techniques, the adoption of strategies to reduce maternal mortality and community awareness in attendance at health facilities.

## Keywords

Hysterectomy, Indications, Prognosis, Ouagadougou

## 1. Introduction

Hysterectomy, which involves removal of the uterus, is a common procedure in surgical practice. In France, it is the most common interventions after appendectomy. Performed vaginally or abdominally, the indications are gynecological or obstetrical order. Obstetric hysterectomy is often performed in emergency in order to save the life of the mother. In gynecology, indications are dominated by the tumor, whether benign or malignant [1] [2] [3] [4].

In Burkina Faso, a country in sub-Saharan Africa, the hysterectomy indications were represented by uterine ruptures and benign fibroids tumors [5] [6] [7]. Since 2010, the promotion of screening for precancerous lesions of the uterine cervix by the method of Visual Inspection with Acetic Acid and Iodine (VIA-VIL) has expanded the indications for hysterectomy.

In the absence of data on hysterectomies in the gynecology department of the University Teaching Hospital Yalgado Ouedraogo (UTH-YO) at Ouagadougou, we felt it necessary to initiate this study to define the indications of hysterectomies and assess prognosis.

## 2. Methodology

It has been a transversal descriptive study conducted into the Obstetrics and Gynecology department of the University Teaching Hospital Yalgado Ouedraogo (UTH-YO) at Ouagadougou, from 1<sup>st</sup> January 2014 to 30 June 2015 or a period of 18 months. Ouagadougou is the capital of Burkina Faso, located in West Africa. Were included in the study, patients who underwent a hysterectomy in the department during the period of the study. The variables studied were demographics, clinical and prognostic aspects.

Data were collected on a survey sheet which has tracked patients from admission until discharge from the hospital. Entry and data analysis were performed on micro PC with 6 GB of Epi Info software. Statistical tests used for data comparison were the usual statistics (mean, proportion, percentage), comparison tests of qualitative variables (chi square test, Fischer test). The significance level was set at  $p < 0.05$ .

## 3. Results

### 3.1. Frequency

From 1<sup>st</sup> January 2014 to 30 June 2015, we identified 128 cases of hysterectomy. During this period, 9474 patients were admitted and 3332 surgeries were recorded in the department of gynecology and obstetrics at the UTH-YO. Hysterectomy represented 1.3% of admissions and 3.8% of surgeries. The division found 20 hysterectomies for obstetric causes and 108 hysterectomies for gynecological causes in the respective reports of 15.6% and 84.4%. The number of hysterectomies in obstetrical causes reported for 6459 deliveries recorded during the period of the study that to say a frequency of 3 hysterectomies for 1000 deliveries.

## 3.2. Socio-Demographic Characteristics

Sociodemographic characteristics are summarized in **Table 1**.

## 3.3. Clinical Aspects

### 3.3.1. Admission Reasons

The various reasons for admission are summarized in **Table 2**.

### 3.3.2. Indications and Surgical Approach

Taking into account the surgical approach initially used, the operating data are summarized in **Table 3**.

### 3.3.3. Type of Hysterectomy

In 109 cases (85.2%), a total hysterectomy was performed and in 19 cases or 14.8%, it was subtotal. In gynecological indications, hysterectomy was intra-facial and performed abdominally.

### 3.3.4. Timing of Surgery

The mean duration of surgery was 100 minutes with extremes of 45 minutes and 210 minutes. It has been represented in the **Figure 1**.

### 3.3.5. Associated Procedures

In the abdominally hysterectomy, 31 patients (24.22%) received a gesture

**Table 1.** Sociodemographic characteristics of patients (n = 128).

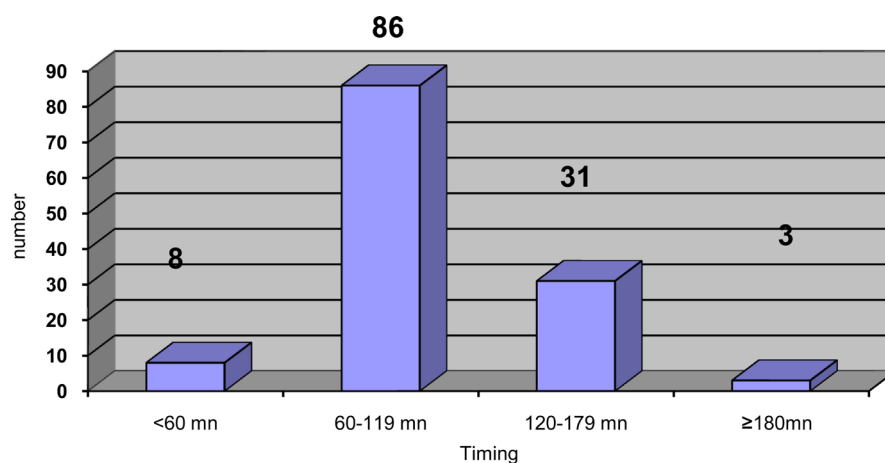
Settings	Values
Middle age (years)	43.23 (16-72)
Profession	
Household	104 (81.3%)
others	24 (18.7%)
Marital status	
Married	89.8%
Widows	6.3%
Singles	2.3%
Divorced	1.6%
Mean number of pregnancy	4.88 (0 - 12)
Number of childbirth	
0	10 (7.8%)
1 - 2	21 (16.4%)
3 - 5	62 (48.4%)
>5	35 (27.4%)
Geographical origin	
Ouagadougou	98 (76.6%)
Others	30 (23.4%)

**Table 2.** Distribution of patients according to the reason for admission (n = 128).

reason	Number	Proportion (%)
<b>Gynecological Indications (n = 108)</b>		
Uterine fibroids	51	47.3
Genital prolapse	22	20.4
Cervical dysplasia	10	9.3
Uterine cervical cancer stage I	9	8.3
Genital bleeding	8	7.4
Choriocarcinoma	3	2.8
Endometrial cancer	1	0.9
Ovarian cyst	1	0.9
Uterine malformation	1	0.9
Ovarian tumor	1	0.9
Uterine tumor	1	0.9
<b>Obstetric Indications (n = 20)</b>		
Uterine rupture	12	60
Postpartum hemorrhage	3	15
Placenta praevia	1	5
Pre rupture uterine	1	5
acromion presentation	1	5
post cesarean evisceration	1	5
Hydatiform mole	1	5
<b>Total</b>	<b>128</b>	<b>100</b>

**Table 3.** Distribution of patients according to the surgical indication and the surgery approach (n = 128).

Indication for surgery	Surgical approach		Total	%
	vaginally	abdominally		
Cancer of the cervix	0	10	10	7.8
Endometrial Cancer	0	1	1	0.78
Choriocarcinoma	0	5	5	3.90
Cervical dysplasia (CIN3)	2	8	10	7.81
Uterine fibroma	1	52	53	41.40
Placental abruption	0	1	1	0.78
Functional bleeding	0	1	1	0.78
Postpartum hemorrhage	0	5	5	3.90
Uterine malformation	0	1	1	0.78
Uterine necrosis	0	1	1	0.78
Uterine perforation	0	1	1	0.78
Polyp delivered by the cervix	1	0	1	0.78
Polyp in the cavity	0	1	1	0.78
Genital prolapse	20	1	21	16.40
Uterine rupture	0	13	13	10.15
Ovarian tumor	0	3	3	2.34
<b>Total</b>	<b>24</b>	<b>104</b>	<b>128</b>	<b>100%</b>



**Figure 1.** Distribution of patients according to the timing of surgery (n = 128).

associated. The complementary gesture most used was oophorectomy in 25 cases. During vaginally hysterectomy, 19 patients or 14.84% received a gesture associated of perineorrhaphy type. The observed difference was statistically significant ( $\chi^2 = 17.94$  p corrected = 2.10 - 5).

### 3.4. Prognosis

#### 3.4.1. Complications

Five (5) cases of bladder lesions or 3.9% of hysterectomy cases including two cases by high way and three, vaginally. Two cases of urogenital fistulas were recorded for a frequency of 1.6%

#### 3.4.2. Duration of Hospital Stay

The average hospital stay was 7 days with extremes of 1 and 27 days. The hospital stay was less than eight days in 89 cases (69.5%). The duration of hospitalization was lower to eight days for 60% of patients operated vaginally versus 68.2% of operated abdominally. This difference is not statistically significant (p = 0.07).

The study of hospital stay according to the indications clearly shows that the length of stay was longer with obstetric indications (p = 0.003).

#### 3.4.3. Mode of Leaving from Hospital

One hundred twenty-two (122) patients were left without any complication or 95.3% in the number of patients operated for hysterectomy. No patient left against medical advice. Four (4) deaths were deplored following obstetric complications case or a fatality rate of 3.1%. Two (02) patients were transferred to the urology department.

## 4. Discussion

The frequency of hysterectomy in our study was 3.8%. Thus it is substantially equal to the one of Balima [8] in a study conducted from 1996 to 2000, which represented 3.11% hysterectomy surgery of the obstetrics gynecology department at the UTH-YO. Despite the extension of the methods of early detection of

precancerous lesions, this frequency seems to remain the same. It should be good to monitor the frequency of hysterectomies to evaluate the impact of the promotion of the management of precancerous lesions in our country.

Our study found a mean age of 43.23 years, ranging from sixteen to seventy-two years in patients operated for hysterectomy; while Kouakou [7] in Cote d'Ivoire found extreme for the vaginally 37 and 61 years with a mean age of patients at 51 years. On 1127 hysterectomies performed in the gynecology department in the hospitals of Grace in Toulouse in France [3], across all lanes, the average age of abdominally hysterectomies was 47.5 years. We notice that in our study, the population was younger. This reflects the lowest life expectation in Burkina Faso; 53 years in urban areas and 48 in rural areas according to national studies.

We recorded twenty four (24) cases of vaginally hysterectomy (18.75%) and a hundred and four cases by abdominally way (81.25%). Périneau [3] on 1127 hysterectomies have used vaginally in 31.05% of cases. This rate is significantly higher than ours, and is explained by the fact that vaginally hysterectomies are recent practice in our department.

For the vaginally way, the indication was genital prolapse in 83.33% of cases operated. For the abdominally way, the most frequent indications are uterine fibroids in 52 cases (50%), uterine rupture in 13 cases (12.5%), 10 cases of cervical cancer (9.61%), cervical dysplasia in 8 cases (7.69%), 5 cases of choriocarcinoma (4.81%) and 5 cases (4.81%) of postpartum hemorrhage. According to Périneau [3], the most frequent indications for the abdominally hysterectomy are the uterine fibroids in 66, 7%. Our results are comparable to those of Périneau's in this pattern. The low rate of vaginally hysterectomy for uterine fibroid in our department can be explained by the frequency of large uterine fibroids whose size makes it better for abdominal surgery [2].

The average duration of surgery in our study was 100 minutes. In 67.19% of cases the duration of intervention was between 60 to 119 minutes. The average operative time was 102 minutes for the abdominally way and 90 minutes for vaginally surgery. According to Lansac [2], the duration of the vaginally hysterectomy is thirty-five to forty-five minutes when an adnexectomy which extends the time of at least fifteen minutes is not realized. Our performance is well below those of literature and reflects our status of beginners in this field.

We recorded during our study five cases of bladder lesions (3.9%) including two cases (1.56%) by abdominally way and three (2.34%) by vaginally way. Périneau [3] recorded on 1127 hysterectomies 1.2% of bladder injury abdominal and 1.7% vaginally. El Ghaoui [9] found on 962 hysterectomies 2.3% of bladder injury by abdominally and 1.5% by vaginally. Our experience shows an acceptable rate of bladder injury. This unusually high rate of 12.5% is explained by our status of beginner with vaginally hysterectomy.

The average hospital stay was 7 days with extremes of 1 to 27. The study of hospital stay according to the indications clearly shows that the stay was signifi-

cantly prolonged with obstetric indications ( $p = 0.003$ ) and the presence of anemia at the admission ( $p < 0.05$ ). Our average stay is comparable to the data of the literature [3] [5] [10] [11] [12] [13] [14].

One hundred twenty-two patients were left without complication (95.3%). For these patients the postoperative course was uneventful. Four cases (3.12%) of death in all were recorded due to obstetric complications. It has concerned women in labor evacuated for uterine rupture (2 cases) and postpartum hemorrhage (2 cases). Périneau [3] recorded 0.9% death after total hysterectomy. About hysterectomies obstetric causes, Dongmo [12] found a mortality of 35% in Yaoundé and Mayi-Tsonga [15] recorded a mortality of 24% in Libreville. Our fatality rate, higher than Périneau [3] can be explained by the fact that the deaths have been in cases of obstetric emergencies evacuated from peripheral structures in poor conditions.

## 5. Conclusion

Hysterectomy remains a major intervention in gynecology and obstetrics. It is marked by complications because very often practiced in a context of emergency with patients in poor general health condition. Improving the accessibility and affordability of health structures, the fight against poverty and monitoring delivery of labor by partogram could contribute to a sharp reduction in obstetric indications for hysterectomy. In contrast, the development of precancerous and cancerous lesions screening policies of the cervix should result in increased gynecological causes of hysterectomies.

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