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Research Article

Hysterectomies: Indications, Approaches and Prognosis in the Gynecology and Obstetrics Department of the Ignace Deen National Hospital of the University Hospital of Conakry

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Abstract

Objectives: The objectives of this study were to identify the indications for hysterectomy and the surgical approaches and to describe the prognosis.

Methods: This was a descriptive longitudinal study with a 4-year retrospective component (February 1, 2017 to January 31, 2021) and a 6-month prospective component (February 1, 2021 to July 31, 2021). The retrospective component focused on the records of patients who underwent a hysterectomy and the prospective part on patients who underwent a hysterectomy in the department during the study period. The study focused on the socio-demographic characteristics of the patients, the indications, the surgical approaches, the types of hysterectomy and the prognosis.

Results: Hysterectomy accounted for 1.3% of all surgeries performed in the department during the study period. It mainly concerned women aged 40 - 49 (37.5%), married (77.4%), uneducated (68.3%), housewives (58.7%), grand multiparas (37.5%) and postmenopausal (57.2%). Indications were dominated by uterine leiomyoma (45.7%). The abdominal route was the most used (85.1%). Total hysterectomy was the most practiced (91.8%). The procedure most frequently associated with hysterectomy was adnexectomy (61.1%). Anemia was the most common complication (13.9%) and the case fatality rate was 4%.

Conclusion: hysterectomy is a common practice in the department. The most common indication is uterine leiomyoma and the abdominal route was the most used. The most common complication was anemia.

Keywords: *Hysterectomy; Prognosis; Conakry; Ignace Deen*

Introduction

Hysterectomy is the surgical removal of the uterus removing either the body (subtotal hysterectomy), or in addition to the body, the neck of the organ (total hysterectomy) [1].

The indications are of a gynecological or obstetrical nature. In Obstetrics, postpartum hemorrhage and uterine rupture are the main indications [2-5] and in gynecology, indications are dominated by uterine leiomyoma and genital prolapse [1,5-7].

Hysterectomy is performed abdominally or vaginally and currently, it can be done by laparoscopic surgery [1].

It is one of the most performed interventions in gynecological surgery [7,8].

In Canada, hysterectomy is ranked sixth with 41,841 operations or 2.8% of all operations with hospitalizations from 2016 to 2017 [9]. In France, it is the most frequent intervention in the abdominopelvic region after caesarean section with 72,000 women operated each year [10]. In Burkina Faso in 2015, 128 cases of hysterectomies were identified in the gynaecology and obstetrics department of Yalgado Ouédraogo University Hospital [5].

At the Conakry University Hospital in 2014, hysterectomy ranked second among all procedures performed in the Gynaecology and Obstetrics departments after caesarean section with 333 cases, i.e. a frequency of 4.4% [11].

Hysterectomy can be the cause of multiple complications during or after surgery, namely hemorrhage, accidental lesions of the urinary and/or digestive tracts, thromboembolism, parietal suppuration or even death [12].

The high frequency of hysterectomy, the importance of the risk associated with this intervention and the lack of recent studies on the subject in the department motivated the realization of this study, the objective of which was to identify the indications for hysterectomy and the surgical approaches and describe the prognosis.

Methods

This was a descriptive longitudinal study with a 4-year retrospective component (February 1, 2017 to January 31, 2021) and a 6-month prospective component (February 1, 2021 to July 31, 2021). The retrospective component focused on the records of patients who underwent a hysterectomy and the prospective part on patients who underwent a hysterectomy in the department during the study period.

Were included in the study for the retrospective component, the hysterectomy records correctly completed and for the prospective component, patients who agreed to participate in the study.

Incorrectly, completed records and patients who did not give their consent were not included.

We conducted an exhaustive recruitment of all cases meeting the inclusion criteria.

The study focused on the socio-demographic characteristics of the patients, the indications, the surgical approaches, the types of hysterectomy and the prognosis.

The data was collected by a documentary review for the retrospective part and by interview, clinical examination and observation of the care for the prospective part.

Data analysis was performed using SPSS version 21.0 software. We calculated proportions for the qualitative variables, averages, standard deviations and extremes for the quantitative variables.

Ethics: The authorization of the head of department was obtained before the start of the study as well as the informed consent of the participants. Anonymity and confidentiality were respected.

Limitations: In this study, the long-term prognosis was not taken into account.

Results

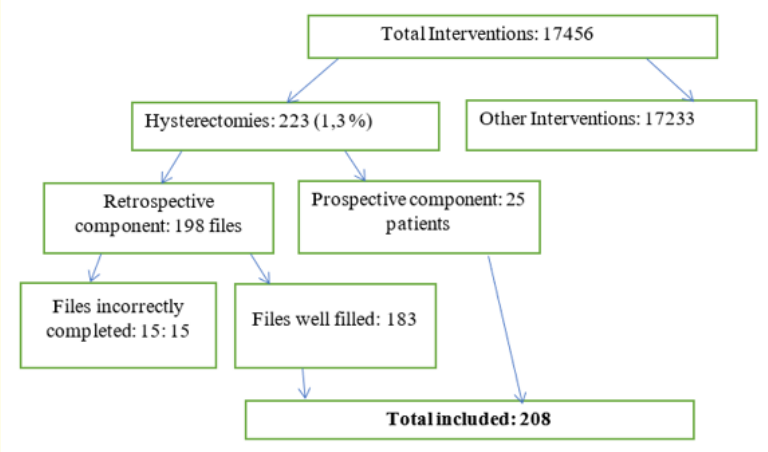

Figure 1: *Frequency of hysterectomy.*

Among the 17456 gynaecological and obstetrical surgeries performed in the department during the study period, there were 223 cases of hysterectomy, a frequency of 1.3%.

Sociodemographic characteristics	Effectives (n = 208)	Percentages
Age (years)		
< 30	7	3.4
30 - 39	24	11.5
40 - 49	78	37.5
50 - 59	46	22.1
≥ 60	53	25.5
Average: 49,8 years ± 11.3	Extremes: 18 and 75 years old	
Marital status		
Married	161	77.4
Single	4	1.9
Divorcee	31	14.9
Widows	12	5.8
Education level		
No schooling	142	68.3
Schooling	66	31.7

Profession		
Housewife	122	58.7
Liberal	56	26.9
Salaried	30	14.4
Parity		
Nulliparous	17	8.2
Primiparous	18	8.7
Pauciparous	44	21.2
Multipara	51	24.5
Grand multiparous	78	37.5
Genital status		
Menopausal	119	57.2
Not menopausal	89	42.8

Table 1: *Distribution of patients who underwent a hysterectomy in the department during the study period according to their sociodemographic characteristics.*

Table 1 shows that hysterectomy mainly concerned women in the 40 - 49 age group (37.5%), married (77.4%), uneducated (68.3%), housewives (58.7%), grand multiparous (37.5%) and menopausal (57.2%).

Indications	Effectives	Percentages
Uterine fibroid	95	45.7
Genital prolapse	31	14.9
Endometrial cancer	29	13.9
Cervical cancer	21	10.1
Ovarian tumor	15	7.2
Polyp given birth through the cervix	5	2.4
Placenta increta	3	1.4
Uterine rupture	5	2.4
Uterine atony	4	1.9
Total	208	100.0

Table 2: *Distribution of patients who underwent hysterectomy in the department during the study period according to indications.*

Indications for hysterectomy were dominated by uterine leiomyoma with 45.7%, genital prolapse with 14.9% and endometrial and cervical cancers with 13.9% and 10.1% respectively (Table 2).

Regarding the approach used to perform the hysterectomy, the abdominal route was used in 177 patients (85.1%) and the vaginal route in 31 patients (14.9%).

The vaginal route was used only in cases of genital prolapse.

Concerning the type of hysterectomy, 191 patients had benefited from a total hysterectomy (91.8%), 5 patients from a subtotal hysterectomy (2.4%) and 12 patients from a colpohysterectomy (5.8%).

Associated gestures	Effective (N = 208)	Percentages
Adnexectomy	127	61.1
Appendectomy	4	1.9
Anterior and posterior colpoperineorrhaphy	31	14.9
Lymph node dissection	42	20.2
Omentectomy	2	0.9
Sacrospinofixation	6	2.9
Cystectomy	3	1.4
Colposuspension	10	4.8
Vaginal closure	2	0.9
Mc Call	3	1.4
Colostomy	1	0.5

Table 3: *Distribution of patients who underwent a hysterectomy in the department during the study period according to associated gestures.*

Among the gestures associated with hysterectomy (Table 3), adnexectomy, lymph node dissection and colpoperineorrhaphy were the most performed with 61.1%, 20.2% and 14.9% respectively.

Complications	Effectives (n = 208)	Percentages
Hemorrhage	25	12.0
Digestive lesions	2	0.9
Parietal suppuration	6	2.9
Disembowelment	2	0.9
Anemia	29	13.9
Postoperative pelvic hematoma	1	0.5
Hypotension	2	0.9
Without complications	141	67.7

Table 4: *Distribution of patients who underwent a hysterectomy in the department during the study period according to the occurrence of complications.*

Table 4 shows that hemorrhage and anemia were the most frequent complications with 12.0% and 13.9% respectively, followed by parietal suppuration with 2.9%.

Among the 208 patients who underwent a hysterectomy, 3 cases of death were recorded, representing a case fatality rate of 1.4%. These deaths concerned 2 patients operated on for uterine rupture (66.7%) and 1 patient operated on for uterine atony (33.3%).

Discussion

This study made it possible to calculate the frequency of hysterectomy in the department, to identify the indications, types and approaches and to describe the short-term prognosis. The long-term prognosis was not evaluated because the follow-up of the patients stopped after the healing of the operative wound.

The study revealed that hysterectomy is a common intervention in our working context in both gynecology and obstetrics. It represented 1.3% of all interventions performed in the department during the study period. This frequency is lower than those reported by Baldé., *et al*. [11] at the CHU of Conakry and Keita., *et al*. [8] at the Reference Health Center of Commune VI of Bamako, which were respectively 4.4% and 2.5%.

The 40 - 49 age group was the most affected by hysterectomy (37.5%) with an average age of 49.8 years. The same observation was made by Traoré., *et al*. [7] in Mali in 2023 and by Belley., *et al*. [13] in Cameroon in 2009 who reported a predominance of women aged 40 - 49 and over among patients who received a hysterectomy with an average age of 44.2 years and 45 years respectively. This result could be explained by the fact that after the age of 40 most women no longer want or can no longer have children. A clear predominance of married women was noted during this study (77.4%). This result corroborates that of Baldé., *et al*. [11] who reported 75.7% of married women in their sample and that of the 2018 Guinea DHS [14] which reported 71.0% of married women. The majority of patients were unschooled with a proportion of 68.3%. The same observation was made by Sy., *et al*. [15] who reported 67.7% of uneducated women in their study. This result could be justified by the low rate of schooling of women in Guinea [14]. More than 6 out of 10 patients were housewives (58.7%). This rate can be superimposed on that found by Sy., *et al*. [15] who reported 54.8% of housewives.

Hysterectomy was mainly performed in multiparas and grand multiparas with respectively 24.5% and 37.5% or 62% of cases. Traoré., *et al*. [7] and Hounkpatin., *et al*. [16] came to the same conclusion in Sikasso and Cotonou with a respective frequency of 46.5% of grand multiparas and 68% multiparas. This is explained by the fact that the decision to hysterectomy is easier to make in this category of women who have finished having the number of children they wish to have. More than half of the women included (57.2%) were menopausal. This situation is related to the fact that 85.1% of the patients were over 40 years old and this made the decision of hysterectomy easier to take because of the impossibility of procreation in the event of menopause.

Indications for hysterectomy were dominated by uterine leiomyoma with 45.7% and genital prolapse with 14.9%. This result is similar to those found by Baldé., *et al*. [11], Hounkpatin., *et al*. [16] who reported that uterine leiomyoma was the most represented indication with respectively 39.6% and 72.0%. This high rate of uterine fibroids could be explained by the high frequency of uterine fibroids in black women and in women over the age of 30 [17].

It appears from this study that 85.1% of hysterectomies were performed abdominally against 14.90% vaginally. This result corroborates that of Traoré., *et al*. [7] in Sikasso who reported 65.1% hysterectomy via the abdominal route versus 34.9% via the vagina. On the other hand, it is different from that found by Pither., *et al*. [18] in Gabon from 2006 to 2010 who reported 61% of hysterectomy performed vaginally. The low proportion of hysterectomy by the vaginal route recorded during our study is explained on the one hand by the high proportion of gynecological cancers requiring lymph node dissection which is difficult to perform by the vaginal route and on the other hand by the obstetrical indications and large uterine fibroids making vaginal hysterectomy difficult. To this must be added the reduced number of surgeons capable of performing a hysterectomy by the vaginal route.

In this series, there were 91.8% total hysterectomies, 5.76% colpohysterectomies and 2.4% subtotal hysterectomies. These rates agree with those of Baldé., *et al*. [11] who reported 95% total hysterectomies and 5% subtotals. On the other hand, Fané., *et al*. [4] in their study reported a clear predominance of cases of subtotal hysterectomy with a frequency of 88.7%. In our study, cases of subtotal hysterectomy only concerned cases of uterine rupture.

This study reveals that the procedure most frequently associated with hysterectomy was adnexectomy (61.1%). This result corroborates that of Keita., *et al*. [8] in Mali who reported in their study that hysterectomy was associated with adnexectomy in 80% of cases.

In 67.7% of cases, the postoperative course was simple without any complications. On the other hand, per or postoperative complications were recorded in 32.3% of cases. These complications were dominated by bleeding and anemia with 12.0% and 13.9% respectively. Keita., *et al*. [8] made a similar observation during their study with a predominance of anemia (7.5%). Traoré., *et al*. [7] reported in their series 25.6% anemia, 7% hemorrhage and 2.3% bladder lesions. We recorded 3 cases of death following an obstetrical indication (uterine rupture and uterine atony) representing a case fatality rate of 1.4%. This proportion of deaths is close to that reported by Traoré., *et al*. [7] which was 1.3%. On the other hand, this death rate is lower than that reported by Ouattara., *et al*. [5] in Ouagadougou (3.1%) and is higher than that found by Keita., *et al*. [8] in Bamako (0.7%).

Conclusion

Hysterectomy is a frequent practice in our work context. It mainly concerns women over the age of 40, multiparous, postmenopausal, uneducated, married and without income-generating activity. The indications are dominated by uterine leiomyoma, genital prolapse and gynecological cancers. The abdominal route was the most practiced. The prognosis was marked by a high frequency of hemorrhage intraoperatively and anemia postoperatively. The case fatality rate recorded was high and concerned only obstetrical cases.

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