

Hysterectomies for Gynaecological Pathology: 56 Cases at the Segou Regional Hospital in Mali

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Abstract

Introduction: Hysterectomy is a surgical procedure involving partial or total removal of the uterus. It is the most common gynaecological surgery in the world. Objective: To describe the epidemio-clinical and prognostic aspects of gynaecological hysterectomies. Patients and methods: This was an 18-month retrospective prospective descriptive study with a six-month follow-up period from 1 December 2020 to 31 May 2022 carried out in the gynaecology department of the Segou regional hospital. Results: Fifty-six (56) hysterectomies were performed out of 118 gynaecological surgical procedures (47.45%). The mean age was 47 ± 11.77 years. Large multiparous women were the most common (50%), with an average parity of 4.58. The main indications were uterine fibroids (30.4%), precancerous lesions of the cervix (17.85%) and uterine prolapse (17.85%). The abdominal route was the most commonly used surgical route (82.14%). Hysterectomy was total in 100% of cases and associated with bilateral adnexectomy in 48.2% of cases. The intra- and post-operative prognosis was satisfactory in 94.6% of cases. No deaths were recorded. The average length of stay was 3.28 days, irrespective of the surgical approach. Three cases of dyspareunia were noted among those who had resumed sexual activity.

Keywords

Hysterectomy, Gynaecological, Pathology, Mali

1. Introduction

Hysterectomy is the surgical removal of the uterus. It can be performed abdominally, by laparoscopic surgery or vaginally [1]. Hysterectomy is the most common gynaecological surgery in the world [2]. Its frequency varies considerably from one country to another, with more than 600,000 cases per year in the USA and 100,000 cases per year in the UK [3]. In Mali, according to studies, it varies between 2.54 and 8% [4]-[6] of gynaecological surgical procedures.

Although hysterectomy is the most common gynaecological surgery in the world, little is known about its frequency, indications and prognosis in our department. This led us to initiate this study in order to describe the epidemioclinical and prognostic aspects of gynaecological hysterectomies.

2. Patients and Methods

This study took place in the gynaecology and obstetrics department of the Ségou regional hospital. This is the referral facility for gynaecological surgery in the region's health system. The aim of this study was to describe the epidemiological, clinical and prognostic aspects of gynaecological hysterectomies. This was a retrospective prospective descriptive study lasting 18 months, with a six-month follow-up period from 1 December 2020 to 31 May 2022. We took an exhaustive sample including hysterectomies for gynaecological indications. Hysterectomies performed outside the department and admitted for postoperative complications and non-consenting patients were not included. Informed consent was obtained from all patients or their legal guardians prior to inclusion in the study. Refusal to participate in the study did not result in restriction of care. Data were entered in Word and Excel and analysed using epi info and SPSS. The chi² test was used, with a significance level of P: 0.05, and the Fisher test for numbers less than a 5.95% confidence interval for RR.

The variables studied were age, marital status, level of education, the reason for consultation, parity, period of sexual life, previous abdominopelvic surgery, indication for hysterectomy, surgical approach, type of hysterectomy, histological lesions, duration of operation, hospital stay, complications and postoperative sexual experience after three months.

3. Results

During the study period, fifty-six (56) hysterectomies were performed out of 118 gynaecological surgical procedures (47.45%).

3.1. Socio-Demographic Characteristics

The mean age of the patients was 47 ± 11.77 years, ranging from 29 to 75 years, and the mean parity was 4.58, ranging from 0 to 11. Marital status and educational level are shown in Figure 1 and Figure 2.







Figure 2. Level of education.

3.2 Clinical Data

The most frequent reasons for consultation were metrorrhagia, a sensation of pelvic mass, pelvic pain or a vaginal discharge from the pelvic organs. The patients were self-referred (80.4%), genitally active (59%), post-menopausal (41%), with a history of abdominopelvic surgery in 9% of cases. (n = 56) (Figures 3 - 5)







Figure 4. Gynaecological period.



Figure 5. Past surgery.

3.3 Operative and Histological Data

Myomatous uterus (30.3%), uterine prolapse (18%) and precancerous lesions of the cervix (18%) were the main indications for hysterectomy. The surgical approach was abdominal in 82.15% of patients. We performed total hysterectomy in all our patients; it was associated with bilateral adnexectomy in 48.2% of cases, with an average duration of 91 minutes, ranging from 50 min to 120 min.

Intraoperatively, we had no complications in 94.6% of patients. Complications were noted in three patients, including one case of haemostasis difficulties, one case of bladder injury and one case of ureteral injury. The average hospital stay was 3.28 days, irrespective of the surgical approach, with extremes of 2 and 15 days.

Three months after the operation, 19 patients (33.9%) stated that they were sexually satisfied; 3 cases (5.4%) reported dyspareunia and in 34 patients (60.7%)

the sexual experience was unknown as they stated that they had not yet resumed sexual intercourse (Table 1).

Variables	Number	Percentage %		
Indications				
Myomatous uterus	17	30.3%		
Uterine prolapse	10	18%		
Precancerous lesion of the cervix	10	18%		
Organic cyst of the ovary	3	5.3		
Endometrial cancer	1	1.7		
Endometrial hyperplasia	9	16		
Endometrial polyp	1	1.7		
Métrorragie rebelle	5	9		
Surgical approach				
Abdominal	46	82.15		
Vaginal	10	17.85		
Type of hysterectomy				
Total hysterectomy + bilateral annexectomy	27	48.2		
Average intervention time	91 minutes; extremes 50 min to 120 min.			
Intraoperative complications				
Bladder lesion	1	1.8		
Difficulty with haemostasis	1	1.8		
Ureteral lesion	1	1.8		
No complication	53	94.6		
Post-operative complications				
Dyspareunia	3	5.4		
Average length of stay	3.28 days; extremes: 2 to 15 days			
Histology results				
Leiomyoma	12	21.42		
Cervical cancer	7	12.5		
Endometrial cancer	5	8.9		
Sexual experiences after 3 months				
Satisfied	19	33.9		
Dyspareunia	3	5.4		
No opinion available	34	60.7		

Table 1. C	perative	and	histo	logical	data	(n = 56)).
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4. Discussion

4.1. Frequency

Hysterectomy accounted for 47.45% of gynaecological surgery in our study, making it the leading gynaecological surgical procedure at Ségou Hospital. Our rate was higher than those of Baldé IS & coll. [7] in Guinea Conakry (4.4%); Michael D & coll. [8] in Tanzania (40.7%), Coulibaly MB & coll. [1] in Mali (21.36%); Ouattara A *et al.* [9] in Burkina Faso (3.8%); Rabiu A & coll. [10] (3.3%); and Ahmed Z D & coll. [11] (5.1%) who reported respectively 4.4%; 21.36%; 3.8%; 3.3% and 5.1% of gynaecological hysterectomies.

Our high rate compared with certain authors such as Guinea Conakry [7] and Burkina Faso [9] is explained by the fact that their frequencies were calculated using all procedures (gynaecological and obstetric).

4.2. Socio-Demographic Characteristics

Many African studies like ours have reported an average age of 45 years or more, such as those by Baldé IS *et al.* [7] and Egbe TO & coll. [12] who reported an average age of 45.7 years; Kishwar N & coll. [2] (45 years) and Traoré A & coll. [5] (50 years).

The age of the patients in these different studies proves that the indications for gynaecological hysterectomy mainly concern women of advanced age in the preor menopause period.

The predominance of large multiparous women (50%) in our study was shared by other African authors such as Gueye M & coll. [13] in Senegal (6 deliveries with extremes of 0 and 12), Keïta M *et al.* [4] in Mali (7 deliveries with extremes of 0 and 13). The high number of multiparous women could be attributed to the fact that women who have children will easily give their consent to the removal of their uterus, but also to the high fertility rate in our country (6.6 children), whereas nulliparous women will want to keep their uterus even in the face of advanced disease in the hope of having a child [10].

The socio-demographic profile was that of a woman with no schooling (69.6%). Traoré A *et al.* [5] in Mali found the same trend, with 81% of women not attending school; in the study by Mbongo J A & coll. [14] in Congo Brazzaville, 80.7% had an average level of education. The low school enrolment rate for girls in our country could explain our high rate of unschooled women.

4.3 Clinical Data

The reasons for consultation for gynaecological conditions are many and varied. Thus, out of 80.4% of patients who came to consult on their own, the main reasons for consultation were metrorrhagia (28.6%), and the sensation of pelvic mass (21.4%). Pelvic pain (17.9%) and vaginal discharge of pelvic organs (17.9%).

Similar reasons have been reported in other studies such as in Tunisia [15], where metrorrhagia represented 50.4%, pelvic pain 45.4% of cases and an increase

in the volume of the abdomen in relation to a mass was reported in 4.2% of cases. In Mali, Coulibaly MB *et al.* [1] found pelvic pain to be the main reason for consultation (30%), followed by genital prolapse (28.5%).

In contrast to our study, in which 59% of patients were sexually active, Traoré A & coll. [5] reported more menopausal women (65%). Our difference is mainly linked to the indications, where polyomatous uteri with no chance of conceiving were the most common, but also precancerous lesions in women who had children and whose regular follow-up was uncertain, meaning that these lesions could progress to an incurable stage.

Previous pelvic surgery meant that hysterectomy could be subject to intraoperative complications due to adhesions. Our frequency of patients (9%) with a history of pelvic surgery was close to that of Chennoufi B & coll. [15] in Tunisia (7.5%), higher than that of Michael D *et al.* [8] in Tanzania (3.5%) but lower than that of Baldé IS & coll. [7] (20.40%).

4.4 Therapeutic and Histological Data

The indications for hysterectomy in our study were fibroids (30.4%), uterine prolapse (18%) and precancerous lesions of the cervix (18%). This was in agreement with many studies that reported uterine fibroids as the most common indication for gynaecological hysterectomy, but with higher rates than ours, such as in Mali (35.71%) [1], Guinea Conakry (39.6%) [7] and Pakistan (35%) [2], Nigeria (66.4%) [11], Cameroon (52.9%) [16] and Senegal (57.1%) [13]. In France, Reboul A & coll. [17] found menometrorrhagia to be the main indication for hysterectomy (52.3%).

The high rates of hysterectomy for uterine fibroids in African studies may be explained by the predisposition of the black race to uterine myomatosis [13].

Hysterectomy remains the treatment of choice for many gynaecological conditions. However, it should only be proposed after the failure of the conservative treatment alternatives currently available. The benefit-risk ratio must be assessed before any operation, especially in the case of benign disease [18].

The choice of surgical approach depends on the patient's history of abdominopelvic surgery, parity, indication for hysterectomy and mastery of the surgical technique. In our study, laparotomy was the preferred approach (82.15%) compared with 17.85% of hysterectomies performed vaginally. This observation is shared by several African authors, notably in Mali [6] (52.5%) with abdominal approach; in DRC Congo [19] (96.9%) with abdominal approach; in Guinea Conakry [7] (82.28%) with laparotomy and in Nigeria where abdominal hysterectomy was 78.1%, while vaginal hysterectomy represented 20.9% of cases [8]. In all these studies, the vaginal route is still rarely used, unlike in developed countries, where we are seeing a decline in the use of the abdominal route in favour of the vaginal and laparoscopic routes [7].

In our context, where cervical cancer screening is not systematic, it is preferable to perform a total hysterectomy to reduce the risk of cancer on the remaining cervix. All our patients underwent total hysterectomy. Our results were in line with other African studies where total hysterectomy was commonly performed, such as in Mali [1] (60.03%); Guinea Conakry [7] (95%); Nigeria [9] (93%) and Senegal [13] (98%). In some regions, however, the data are different, as in Burkina Faso where Dao B & coll. [20] reported 48.2% subtotal hysterectomy compared with 38.3% total hysterectomy, as their study included obstetric hysterectomies.

Authors' attitudes to the adnexa during hysterectomy for benign gynaecological lesions vary according to age. In the literature, the rate of adnexectomy varies from 15.1 to 83.3% for the abdominal approach, and from 5.7 to 49.6% for the vaginal approach [15]. In our study, the rate of bilateral adnexectomy was 48.2%. Like our study, some authors had performed additional procedures such as bilateral salpingo-oophorectomy (75%) [2] oophorectomy (25%) [10]. The duration of the operation depends on the surgical approach and the indication for hysterectomy. Our average time was 91 minutes, with extremes of 50 and 120 minutes. This was similar to that of Ouattara A *et al.* [9] (100 min) with extremes of 45 and 210 minutes and Baldé I S & coll. [7] (96 min) for the abdominal approach, with extremes of 56 and 180 minutes, whereas it was 55 minutes for the vaginal approach, with extremes of 45 and 70 minutes.

The most frequent histological lesions were leiomyomas (21.42%), cancerous lesions of the cervix (12.5%) and endometrial cancer (8.9%). The same histological lesions have been reported throughout the world. In Sri Lanka, Bosco R J & coll. [21] found 37.5% leiomyomas and 1% cervical cancer lesions, while in Pakistan Kishwar N & coll [2] found 40% leiomyomas. In Tanzania and Rwanda, Michael D [8] and Raina R F [22] reported 51.1% and 35% leiomyomas respectively, and Michael D found 16.8% malignant lesions.

The high rates of malignant lesions in developing countries may be explained by the absence of systematic screening or delays in screening for pre-cancerous lesions of the uterus.

Although hysterectomy is a very commonly performed operation, it does have a small but real complication rate, as does any surgical procedure [23]. This was the case in our study, with 94.6% of patients operated on without complication. However, there was one case of difficulty with haemostasis, one case of bladder injury and one case of ureteral injury. This low rate of intraoperative complications demonstrates the experience of our department in hysterectomy, as 91.1% of our patients were operated on by experienced obstetric gynaecologists. The same observation was made by Donnez O & coll. [24] in Canada, where a retrospective study of 4505 hysterectomies was published, and it was performed by the same surgical team over a period of 16 years. They observed a very low overall rate of trauma to the bladder or ureter, similar to laparotomic and vaginal hysterectomy, a rate that decreased with the surgeon's experience.

Intraoperative complications similar to ours have been reported in Mali [1], with 2.8% each of bladder injury and ureteral ligation; in Nigeria [10] haemorrhage, bladder injury and ureteral injury with respectively 11.9%, 5.9% and 2.4% of cases. We noted one case of vesico-vaginal fistula after the operation. Ouattara A & coll

[9] recorded 1.6% of cases of urogenital fistula. On the other hand, in the Buambo B S F & coll. study [25], postoperative complications were dominated by parietal suppuration (92.6%).

Three months after the operation, 94.6% of our patients were satisfied. The same level of satisfaction was reported in Côte d'Ivoire [17] and Senegal [13], with respectively 89.2% and 98% of patients satisfied with their reason for consultation. In fact, satisfaction is the rule if hysterectomy is performed for a genuine medical reason; the operation then frees women and improves their well-being.

Our average hospital stay was 3.28 days, irrespective of the surgical approach, with extremes of 2 and 15 days. In Guinea Conakry [7], it varied from 7.15 to 10.3 days depending on the surgical approach, compared with 7 days in Burkina Faso [9], with extremes of 1 and 27 days.

Hysterectomy appears to have little impact on sexuality, with the exception of reduced libido, subject to a pre-operative psychosexual interview. All our patients had an information interview with the attending physician about the reasons for the decision to undergo surgery, as in all cases it was scheduled. Three months after the operation, 33.9% of patients were sexually satisfied; 5.4% reported dyspareunia and the sexual experience of 60.7% of patients was unknown because they had not yet resumed sexual intercourse, either for fear of pain or out of sympathy for the part of their partners.

Several studies have reported a satisfactory sex life in the majority of patients, which reflects the validity and quality of the indication for hysterectomy. In Mali [1], 84.2% and in Congo Brazzaville [14], respectively, 100% of couples had a satisfactory sex life after the dramatic experience of the disease prior to hysterectomy.

In Senegal [13], where patients had resumed sexual activity, fear of pain and reduced pleasure during intercourse were expressed by 55.7% and 38.6% of patients respectively. These fears justified a reduction in the frequency of sexual intercourse in 54.3% of patients. In addition to dyspareunia, other secondary complications were reported, such as hot flushes and night sweats in 65.7% and 54.3% of patients.

5. Conclusion

Hysterectomy is a frequent procedure in our practice. Its classic indications in gynaecology are uterine fibromyoma, uterine prolapse, cervical cancer and endometrial cancer. The abdominal route is preferred in our context, and complications are minimal.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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