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Uterine Fibroids Operated in the Obstetric Gynecology Department of the Mother-Child Department at the University Hospital of Tengandogo: About 109 Cases

Dieudonné Hien*, Paul Kain, Noufou Sankara, Raïssom Zongo, Batababon Adjahourabou, Ali Ouedraogo

Obstetrics and Gynaecology Department of the University Hospital of Tengandogo, Ouagadougou, Burkina Faso
Email: *irdjiledieudo@gmail.com

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Abstract

Background: Uterine fibroid is the most common benign gynecological tumor in women of childbearing age and is common in our context. It can be discovered incidentally or by metrorrhagia. **Objective:** To study the epidemiological, clinical, therapeutic and prognostic aspects of uterine fibroids operated in the gynaecology and obstetrics department of the CHU-T. **Patients and Method:** This was a descriptive cross-sectional study including all patients operated on for uterine fibromyoma in the gynaecology-obstetrics department. The collection mode was retrospective, over a 5-year period from January 1, 2017 to December 31, 2021 in the mother-child department of the CHU-T. Data entry and analysis were carried out on a microcomputer using Epi info 7.2.5 software. **Results:** We collected 109 cases of uterine fibroids which represented 42.5% of the surgical activities of the gynaecology department. The average age of the patients was 38.9 years ± 7.8. Married women represented 77.1%. Salaried women accounted for 65.1%. The main reasons for consultation were uterine haemorrhage (53.1%), pelvic pain (40.4%) and hypofertility (31.2%). Ultrasound was performed in all patients to help map the fibroid nuclei. The main indication for surgery was haemorrhagic myoma (43.1%). The surgical treatment was conservative (myomectomy) in 58.7% of cases and radical (hysterectomy) in 27.4% of cases. The most frequent postoperative complication was vulvar haemorrhage and the average hospital stay was 4 days ± 1.4. Anatomical pathological examination of the surgical excision specimen carried out on 30 operated patients concluded that uterine leiomyoma was diagnosed in 100% of cases. **Conclusion:** Patient education for early detection, universal health insurance and cost subsidies could improve the management of this condition.

Keywords

Uterine Fibromyoma, Surgical Treatment, CHU-Tengandogo, Burkina Faso

1. Introduction

Uterine fibroma, also known as myoma or leiomyoma, is a benign tumor that develops from the smooth muscle fibres of the uterus [1]. Its incidence increases with age. Indeed, 20% - 30% of European women and nearly 50% of black women over 30 years old have uterine fibroids [2]. Its management involves different types of treatment, the indications of which depend on the symptomatology and certain characteristics of the patients [3] [4]. In Europe, Downes *et al.* [5] found that surgery was the most commonly used treatment for fibroids. In Guinea, Baldé *et al.* [6] showed that uterine fibroids accounted for 42.4% of uterine pathologies operated upon. Another study conducted by Coulibaly *et al.* [7] in Mali found a higher rate of 48.88%. In our context, patients generally consult at an advanced stage with large myomas or other complications justifying conservative surgery such as myomectomy or radical surgery, depending on their age and desire for pregnancy. Considering the frequency of this pathology in Africa and the complications that it can cause, we thought it would be useful to study the indications and immediate prognosis of the surgical treatment of uterine fibroids in the gynaecology department of the CHU-T in order to improve management.

2. Patients and Method

This was a descriptive cross-sectional study with retrospective data collection over a five-year period from January 1, 2017 to December 31, 2021. Our study included all patients with a clinical and/or paraclinical diagnosis of uterine fibroids who underwent surgery in the obstetrics gynaecology department of CHUT during the study period. Physicians' outpatient registers, anaesthetists' registers, operative records and patients' medical records were our sources of information. Epidemiological (age, number of pregnancies, number of deliveries, marital status, profession), clinical (reasons for consultation), paraclinical (ultrasound results, anatomopathological results), therapeutic (surgical indication, type of surgery) and immediate prognostic variables (intraoperative complications, postoperative complications, length of hospitalization) were studied. Data entry and analysis were performed on a microcomputer using Epi info 7.2.5 software. The anonymity of the patients and the confidentiality of the information were respected.

3. Results

3.1. Epidemiological Aspects

- **Frequency**

  During our study period, we recorded 10,575 gynaecological outpatient con-

sultations. Of these consultations, 256 cases were related to uterine fibroids and 109 or 42.6% were received surgical management.

- **Socio-demographic characteristics**

Age

The age distribution of the patients is shown in Figure 1.

The average age was 38.9 ± 7.8 years with extremes of 25 and 59 years. Patients between 30 and 40 years of age constituted 47.7%.

Number of pregnancies, deliveries, and marital status

The average number of pregnancies was 2.1. Patients with at least two pregnancies represented 59.6% of the population and those with at least two deliveries 51.4%. Women with a marital life represented 77.1%.

Occupancy

Patients with a paid activity (Employee + worker in the informal sector) accounted for 79.8%.

3.2. Diagnosis

The distribution of patients according to the reasons for consultation is presented in Figure 2.

The reasons for consultation were isolated or associated. Pelvic pain associated with metrorrhagia accounted for 46.8% and hypofertlity 31.2%.

Ultrasound

Ultrasound was performed in all patients. It showed 247 fibroids, 115 of which were located in the interstitial lining of the uterus. The corporal segment contained 226 fibroids. Concerning the size, 140 fibroids were smaller than 5 cm. The distribution of the number of fibroids according to topography and size in the uterus is shown in Table 1.

3.3. Treatment

- **Surgical indication**

Haemorrhagic myoma and hypofertility accounted for 43.12% and 32.11% of

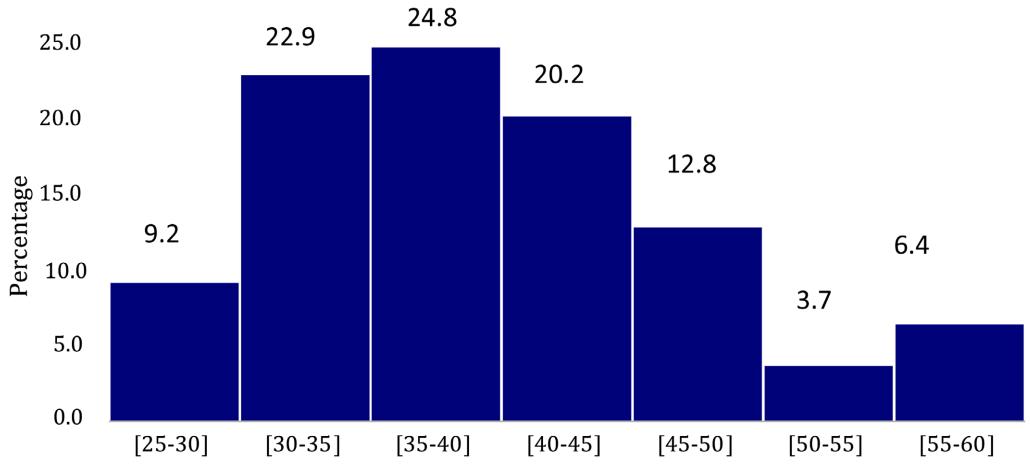

Figure 1. Age distribution of patients (n = 109).

the indications for surgery respectively. The distribution of patients according to the indication for surgery is shown in Table 2.

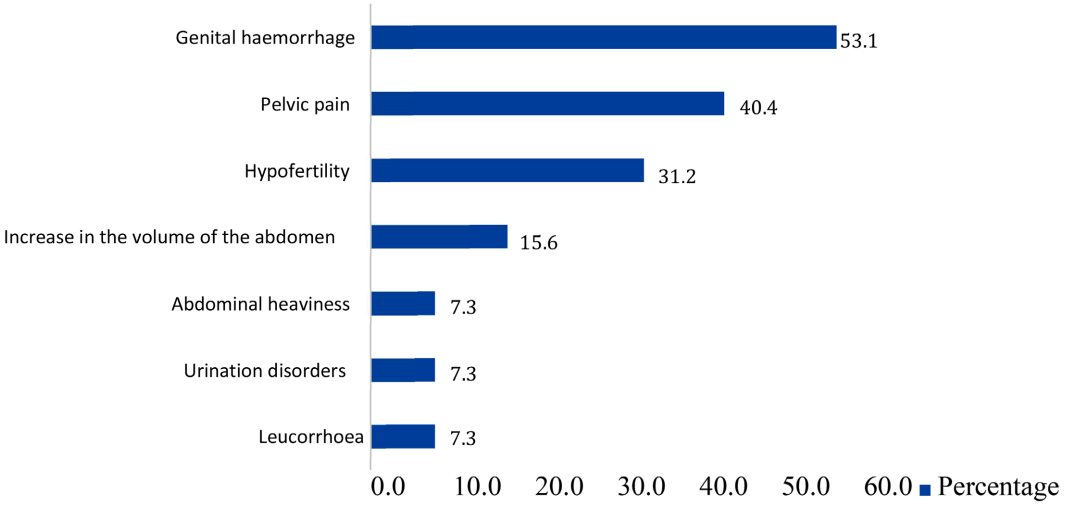

Figure 2. Distribution of patients according to reasons for consultation (n = 109).

Table 1. Distribution of fibroid numbers by topography and size in the uterus (n = 247).

Topography	Headcount	Proportion
Uterine lining		
Interstitial	115	46.6
Sub-serous	77	31.2
Submucosal	55	22.2
Segments		
Corporal	226	91.5
Isthmic	15	6.1
Delivered through the cervix	4	1.6
Broad ligament	2	0.8
Size of the fibroid		
Less than 5 cm	140	56.7
Between 5 and 10 cm	86	34.8
Greater than 10 cm	21	8.5

Table 2. Distribution of patients according to surgical indication (n = 109).

Surgical indications	Headcount	Percentage
Haemorrhagic myomas	47	43.12
Myomas + hypofertility (1st et 2nd grade)	35	32.11
Hyperalgesic myomas	16	14.68
Large and compressive myomas	11	10.1
Total	**109**	**100.0**

- **Approach**

Laparotomy was performed in 105 patients, *i.e.* 96.3%, all with a Pfannenstiel-type incision, and the vaginal route in four patients.

- **Type of intervention**

The interventions performed were myomectomy in 58.7%, hysterectomy in 27.4% and bistournage in 13.9% of cases.

- **Anatomopathological results**

Anatomopathological results were available for 30 patients. Uterine leiomyoma was found in 100% of cases.

3.4. Prognosis

We observed 25 cases of complications, *i.e.* 22.9% of patients operated on. These were intraoperative complications (13.8%) and postoperative complications (9.1%).

- Intraoperative complications (n = 15)

They were mainly represented by haemorrhage in 7 cases and uterine effraction in 6 cases (Table 3).

- Postoperative complications (n = 10)

These were haemorrhages in 6 cases or 5.5%, urinary tract infections and thrombophlebitis of the lower limbs with 2 cases each or 1.8%.

The average length of hospitalization was 04 days ± 1.4 with extremes of 02 and 10 days.

4. Discussion

4.1. Frequency

The hospital frequency of uterine fibroids treated surgically was 42.6%. This frequency seems high because in the majority of cases the uterine fibroid is asymptomatic [8] [9]. In our African context, because of the delay in consultation, fibroids are discovered during complications such as metrorrhagia, compression of neighboring organs with its multiple consequences requiring surgery as a therapeutic alternative. Our results are similar to those obtained in most African studies such as Baldé *et al.* [6] in 2015 in Guinea, Coulibaly *et al.* [7] in 2015 in Mali which also found high frequencies of 42.4% and 48.88% respectively.

4.2. Socio-Demographic Characteristics

The mean age of patients was 38.9 years. It is a pathology whose incidence

Table 3. Distribution of patients according to intraoperative complications.

Intraoperative complications	Headcount
Haemorrhage	7
Uterine effraction	6
Neighbouring organ damage	2
Total	15

increases with age in women during genital activity [10]. On the other hand, the lack of financial means, the fear of surgery are other factors that could explain the delay in surgical management. Our results are similar to those found by Tiemtoré *et al.* at the CHU of Bogodogo in Burkina [11] and Koffi *et al.* [12] in Côte d'Ivoire which found respectively an average age of 37 years and 37.5 years.

4.3. Diagnosis

The reasons for consultation were dominated by uterine haemorrhage (53.1%), pelvic pain (40.4%) and subfertility (31.2%). This high frequency of genital bleeding could be explained by the fact that glandular hyperplasia created by estrogen-progestin imbalance, and the mechanical pressure exerted by myomas lead to favorable bleeding conditions [8]. The role of uterine myomas as a causative factor for infertility seems logical. Several mechanisms can explain infertility, including obstruction of tubal orifices and modification of the uterine cavity by submucosal fibroids [13]. The rate of infertility related to uterine fibroids cited in the literature ranges from 5% to 10% [13]. In our series, the high proportion of subfertility could be explained by the delay in management allowing time for obstruction of the tubal orifices and modification of the uterine cavity. Our results are similar to those of Baldé *et al.* [6] in Guinea which also reported genital bleeding as the main reason for consultation in 85.8% of cases. Our results support the literature evidence that genital bleeding is the essential telltale functional manifestation of uterine fibroids [14].

4.4. Treatment

- **Indications for surgical treatment**

Haemorrhagic myoma was the main operative indication (50.4%). According to Foulot *et al.* [15], myomectomies are mainly intended for women of childbearing age whose myomas are symptomatic (menorrhagia or menometrorrhagia, pelvic pain and signs of compression of neighboring organs...). Myomectomy is rarely performed after menopause except for a single fibroid that is interstitial and hemorrhagic or subserous pedunculated and painful [10]. Hysterectomy is indicated in case of polymyomatous uterus in a multiparous, in case of associated pathologies such as adenomyosis or adnexal pathology or in case of menorrhagia rebellious to conservative treatment.

- **Types of surgical treatment**

The treatment of uterine fibroids has evolved in recent years. The sole purpose of medical treatments is to treat myoma-related symptoms [16]. Surgical treatment is still a very important component, and in recent years it has benefited from the contribution of new endoscopic techniques. A technique using high-intensity focused ultrasound under ultrasound guidance could revolutionize the management of fibroids. Called HIFU (High Intensity Focused Ultrasound), it has the advantage of being non-invasive, to be able to be performed on an outpatient basis under simple sedation and to cause few complications.

Myomectomy and hysterectomy were the types of procedures performed in our study due to insufficient technical platform. This could explain the long hospitalization of our patients (4 days on average). Myomectomy in general was performed in 76.1% and hysterectomy in 23.9% of cases. Indeed, while hysterectomy eliminates the possibility of recurrence, it is still not chosen by patients who, even in the absence of desire for pregnancy, the idea of wanting to keep one's uterus makes prefer the choice of a myomectomy. This high frequency of myomectomy practice in our series is comparable to those obtained by Baldé *et al.* [6] in Guinea and Hamad *et al.* in Mauritania [17] which also found a higher frequency for the practice of myomectomy with respectively 70% and 75% of cases. Laparotomy was the most commonly used route in our study (95.4%). This result is comparable to that obtained by Hamad *et al.* in Mauritania [17] who reported a laparotomy in 100% of cases. Hysteroscopic and laparoscopic pathways are methods that were not used in our series due to the insufficiency of the technical platform.

4.5. Prognosis

Intraoperative complications were observed in 13.8% of cases, mainly represented by haemorrhages and uterine intrusion, and postoperative complications in 9.1% of cases, also dominated by hemorrhages.

These data seem high and require special attention in the management of myomas. Thus, Davitian *et al.* stipulate that the use of agonists of Gonadotropin releasing hormone (Gn-RH) in preoperative seems to allow, via a reduction of uterine volume by vascular rearrangements of the myometrium, a decrease in intraoperative haemorrhage [18].

4.6. Limits

Our study had some limits related to the incompleteness of the data and the low availability of histopathological test results.

Despite these limitations, we arrived at results that allowed us to conduct a discussion in comparison with those presented by other authors.

5. Conclusion

Uterine fibroid is a common pathology in gynecological surgical practice. The most frequent reasons for consultation are uterine haemorrhages, pelvic pain and subfertility. Raising patient awareness for early detection, universal health insurance and subsidizing costs could improve its care.

Conflicts of Interest

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

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