

# Epidemiological-Clinical Aspects of Uterine Leiomyoma at the Reference Health Center of Commune VI of the Bamako District

Alou Samaké<sup>1\*</sup>, Lasseny Diarra<sup>2</sup>, Mamadou Keita<sup>1</sup>, Dramane Haidara<sup>1</sup>, Mamadou Haidara<sup>3</sup>, Coulibaly Soumana<sup>4</sup>, Mamadou Diallo<sup>1</sup>, Moussa Konaté<sup>1</sup>, Mariam Maiga<sup>1</sup>, MS Ag Med Elméhdî Elansari<sup>1</sup>, Kassogue Djibril<sup>5</sup>, Dao Seydou Zana<sup>6</sup>, Samake Hawa<sup>7</sup>, Konate Karim<sup>2</sup>, Dembele Bertin<sup>2</sup>, Coulibaly Moussa<sup>8</sup>, Mariko Seydou<sup>9</sup>, Colette Dohino<sup>8</sup>

<sup>1</sup>Reference Health Center of Commune VI of the Bamako District, Bamako, Mali

<sup>2</sup>Bamako Dermatology Hospital (HDB), Bamako, Mali

<sup>3</sup>Kalaban Coro Reference Health Center, Bamako, Mali

<sup>4</sup>Hangadoumbo Moulaye Touré Hospital in Gao, Gao, Mali

<sup>5</sup>Timbuktu Hospital, Tomboctou, Mali

<sup>6</sup>Reference Health Center of Commune II of the Bamako District, Bamako, Mali

<sup>7</sup>Reference Health Center in Commune V of the Bamako District, Bamako, Mali

<sup>8</sup>National Institute for Training in Health Sciences, Bamako, Mali

<sup>9</sup>Mali Hospital, Bamako, Mali

Email: \*alousamake2008@gmail.com

**How to cite this paper:** Samaké, A., Diarra, L., Keita, M., Haidara, D., Haidara, M., Soumana, C., Diallo, M., Konat, M., Maiga, M., Elansari, M.A.M.E., Djibril, K., Zana, D.S., Hawa, S., Karim, K., Bertin, D., Moussa, C., Seydou, M. and Dohino, C. (2024) Epidemiological-Clinical Aspects of Uterine Leiomyoma at the Reference Health Center of Commune VI of the Bamako District. *Open Journal of Obstetrics and Gynecology*, 14, 674-681.

<https://doi.org/10.4236/ojog.2024.145057>

**Received:** March 29, 2024

**Accepted:** May 11, 2024

**Published:** May 14, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

**Introduction:** Uterine fibroid is a mixed mesenchymal tumor, developing from smooth muscle cells of the myometrium, separated by connective tissue. The majority of fibroids are asymptomatic and do not require any intervention or other exploratory measures. However, in some cases fibroids are symptomatic, their treatment should aim to improve symptoms and quality of life. **Objectives:** Describe the epidemiological-clinical aspects of uterine fibroids in the gynecology and obstetrics department of the reference health center of commune VI of the Bamako district. **Methodology:** This was a retrospective descriptive study carried out over a period of one year. It concerns all patients seen in consultation in the gynecology and obstetrics department of the reference health center of commune VI. **Results:** during the study period, the uterine fibroid frequency was 1.80%. During this same period, fibroids represented 5.59% of gynecological-obstetric pathologies operated on in the department. The 30 - 45 year old age group was the most represented with a frequency of 75.63%. The average age was 36.87 years  $\pm$  6.2 years with extremes of 25 and 63 years. Married women were the most represented 97.48%. The vast majority of our patients 95.8% were not postmenopausal. The multigravida

vidas were the most represented, *i.e.* 37.50% with a large part of the pauciparous 41.29%. In our patients, 96.64% had a clinical symptom on their fibroid with the main reason for consultation being the sensation of a pelvic mass in 97.48%. We recorded three cases of infertility as associated factors. Ultrasound was performed in all patients. The location of the myxomatous nuclei was subserosal in the majority in 42.86% and with multiple nodules in 84.85% of cases. The main indication for myomectomy was the failure of medical treatment in 86.49% of cases. Surgical treatment was mainly a myomectomy 93.30%, a hysterectomy was indicated in 6.70%. No cases of death were recorded. **Conclusion:** Uterine fibroid is a gynecological pathology that exists in our department; its frequency is estimated at 5.59%. For better management of fibroids, it is necessary to have a good knowledge of the factors favoring the occurrence of uterine fibroids, their growth and the symptoms to prevent the appearance of it or even at best to operate. This prevention must be a concern for public health because fibromatous pathology is frequent, costly and hampers quality of life.

## Keywords

Myomas, Surgery, Myomectomy

## 1. Introduction

Uterine fibromyomas, also called myoma, fibromyoma or leiomyoma, are the most common benign solid tumors of the female genital tract. They affect 20 to 25% of women of childbearing age and are 3 to 9 times more common in African women than in Anglo-Saxon women [1]. The occurrence of the pathology during life is a very frequent event; its incidence gradually increases with age to reach 40% in women over 40 years old [2]. Today we do not know the true cause of fibroids but genetic, hormonal and environmental factors are suspected. The main risk factors identified in the literature are firstly age, secondly ethnic origin [3]. The majority of fibroids are asymptomatic and do not require any intervention or other exploratory measures. Only 20% to 50% of these fibroids are symptomatic. Symptoms include menstrual cycle abnormalities (heavy, irregular, and prolonged uterine bleeding), iron deficiency anemia, or mass symptoms (e.g., pelvic pressure/pain) [4]. As a first intention, a pelvic ultrasound performed suprapubically and endovaginally allows, on the one hand, to confirm the diagnosis and, on the other hand, due to its good spatial resolution, to produce a fairly precise map of the fibroids [5]. MRI, the most effective examination for studying the female pelvis, is performed as a second intention. It makes it possible to confirm the diagnosis, to specify the type of fibroid (and its changes) Panel George A. *et al.* [6]. Myomectomy is an option for women who wish to preserve their uterus or enhance their fertility; it exposes the patient to the risk of having to undergo other interventions [5]. Hysterectomy is a definitive solution; However, this solution is not to be preferred for women who wish to pre-

serve their fertility and/or their uterus. The treatment chosen should aim to improve symptoms and quality of life Panel George A. *et al.* [5].

## 2. Methodology

This was a retrospective descriptive study carried out over a period of one year. It concerned all patients seen in consultation in the gynecology and obstetrics department of the Commune VI reference health center. We carried out an exhaustive sampling of all the patients treated in our department for uterine fibroids with a confirmed clinical and/or paraclinical diagnosis (ultrasound, hystero-graphy) with a complete medical file. The variables studied were epidemiological variables (age, profession, marital status, ethnicity, residence) clinical variables (reason for consultation, history, general condition, blood pressure, temperature, weight, conjunctiva, breasts, abdomen and eu examination speculum) paraclinical variables, the results of additional examinations. Data were collected from gynecological consultation registers, patient files and operating reports, then entered on an individual survey form. The data collected were entered and analyzed with SPSS version 21 software. The texts, tables, and graphs were designed using Word and Excel 2016 software. The statistical test used was the average and the standard deviation.

## 3. Results

During the study period, the frequency of uterine fibroids was 1.80%. During this same period, fibroids represented 5.59% of gynecological-obstetric pathologies operated on in the department. The 30 - 45 year old age group was the most represented with a frequency of 75.63%. The average age was 36.87 years  $\pm$  6.2 years with extremes of 25 and 63 years (**Figure 1**). Household occupation was the main function of the patients, *i.e.* 75.63%. According to marital status, married women were the most represented 97.48% (**Figure 2**). The most represented age at menarche was 14 years in 47.06%. The average age was 13.90 years  $\pm$  1.06 years with extremes of 11 and 16 years. The notion of taking contraceptives was only found in 0.84% of patients. In the majority of cases 59.70% the duration of menstruation was normal, it varied from 3-4 days, with an average duration of 4 days. The vast majority of our patients 95.8% were not postmenopausal. The number of living children per patient was between 3 and 4 in 46.30% of our patients with an average of three living children. Women who had two abortions were the most represented, *i.e.* 46.15%. The multigestations were the most represented, *i.e.* 37.50% with a large part of the pauciparous 41.29% (**Figure 3**). During our study, very few patients had a previous surgical history, including a myomectomy 2.52%, and a cesarean section 0.84%. And only 1.68% patients had a medical history. In our patients, 96.64% had a clinical symptom on their fibroid with the main reason for consultation being the sensation of a pelvic mass in 97.48%. The majority of our patients had a healthy cervix at the speculum, *i.e.* a frequency of 60.50% (**Table 1**). We recorded three cases of infertility as associated

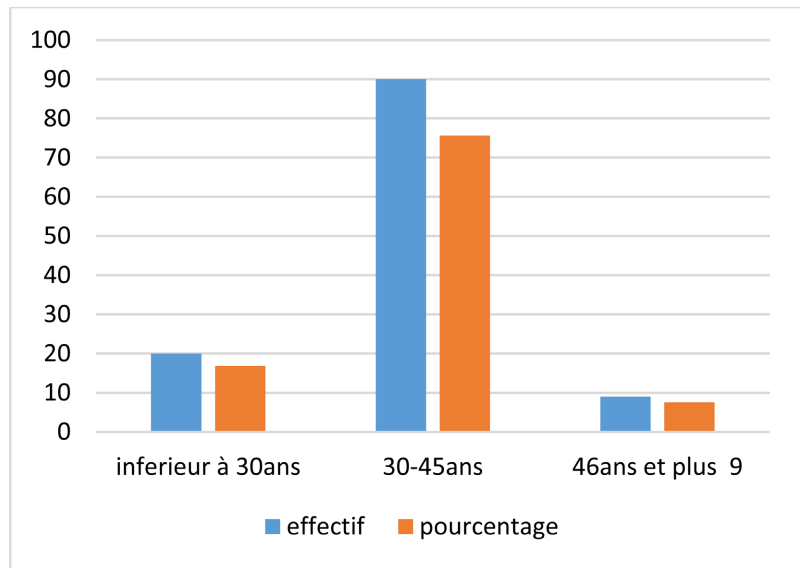


Figure 1. Distribution according to age group.

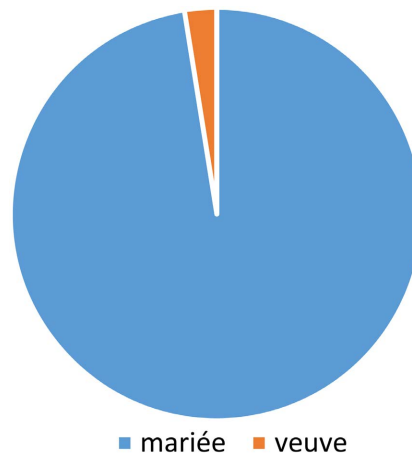


Figure 2. Distribution by marital status.

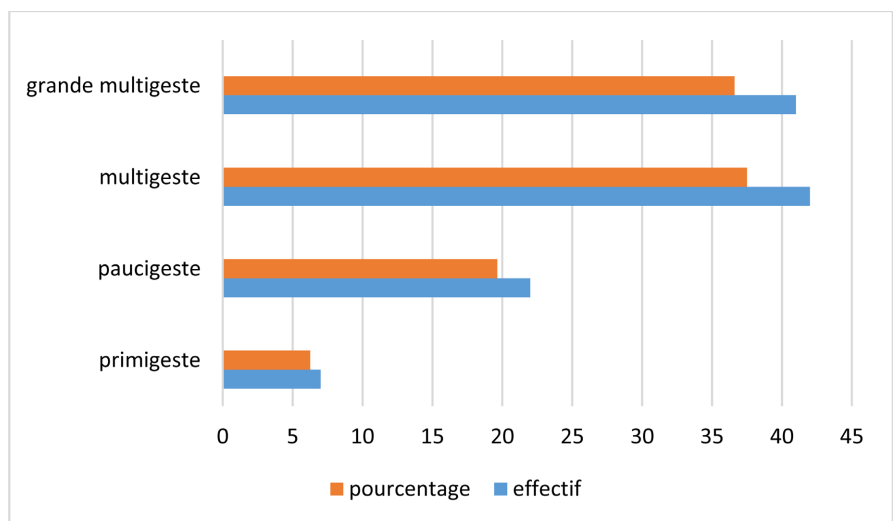
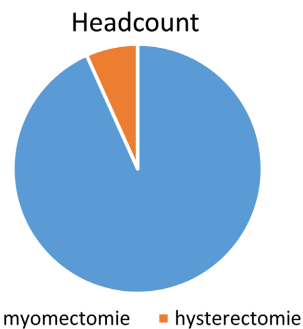


Figure 3. Distribution according to parity.

**Table 1.** Distribution according to clinical data.

Reasons for consultation	Headcount	Percentage
Pelvic or abdominal mass	117	98.3
Desire for a child	2	1.68
Total	119	100
Condition of the collar	Headcount	Percentage
Healthy	72	60.50
Bleeding	24	20.20
Ulceration	13	10.90
Cervical polyp	10	8.40
Total	119	100
Location of myomas	Headcount	Percentage
Corporal	86	72.26
Cervical	11	9.24
Others	22	18.5
Total	119	100

**Figure 4.** Distribution according to type of surgery.

factors. Ultrasound was performed in all patients. The location of the myxomatous nuclei was subserosal in the majority in 42.86% and with multiple nodules in 84.85% of cases. Hysterosalpingography was the associated examination, performed in a single patient. The main indication for myomectomy was the failure of medical treatment 86.49% of cases. The majority of surgical treatment was a myomectomy in 93.30%, a hysterectomy was indicated in 6.70% (**Figure 4**). During the surgery in 96.64% of cases no incident or accident was recorded, despite everything there was recorded 3.36% break-in of the uterine cavity.

## 4. Discussion

### 4.1. Frequency

During the study period, uterine myoma represented a frequency of 1.80% of reasons for consultation and a frequency of 5.59% of surgical activities. Our fre-

quency was higher than that of Dembélé S and found a prevalence of 0.86% [6]. However, many other African authors had found a frequency higher than ours, their frequency varied from around 12.64% to 15% [7] [8].

## 4.2. Epidemiological Characteristics

The 30 - 45 year old age group was the most represented during our study, with a frequency of 75.63% with an average age of 36.87 years. This result is comparable to other African studies such as those of ISSA N *et al.* [1], which found the 31 - 40 year old group, and Ahmadou Coulibaly *et al.* [9] 30 - 45 year olds. Our age range was higher than that of M. Laghzaoui Boukaidi *et al.* [10] 20 - 34 years and relatively lower than that of Nourelhouda Chalal and Abbassia Demmouche [11] who found an age range of 40 - 44 years. Married women were the most represented, *i.e.* 97.48% during our study. Our result is comparable to that of Nourelhouda C and Abbassia Demmouche [11] who found in their study a greater majority of married women, *i.e.* 75%. During this study, pauciparous women were the most represented, *i.e.* 41.29%. Other studies [10] [11] found a majority of patients were nulliparous with respectively 45%, 37.83%. According to the literature, nulliparous women are more exposed to this pathology compared to multiparous women, which supports, according to numerous studies, the parity-fibroid association which highlights the protective nature of multiparity against the appearance of uterine myomas [12] [13]. The most represented age at menarche was 14 years in 47.06%. This figure is comparable to those of other studies [9] [10]. Early age at menarche constitutes another risk factor linked to the appearance of fibroids [12].

## 4.3. Clinical Characteristics

In our study the functional signs were dominated by a sensation of pelvic mass with 97.48%. M. Laghzaoui Boukaidi *et al.* [10], found genital hemorrhages in 68.26%. On the other hand, according to Bénilde Marie-Ange Tiemtoré-Kambou [3] myomas were discovered incidentally in the majority of cases 34.70%. All 100% patients had an ultrasound performed confirming the presence of fibroids. During this same study, 0.84% of our patients had hysterosalpingography performed. Hysterosalpingography was not systematic during the study; its performance was motivated by a notion of desire for a child. In his Dembélé S *et al.* study [6] all patients had an ultrasound performed, 27% had also had a hysterosalpingogram. The number of myomas varied from 1 to 6, so we found 69.40% multiple myomas, 30.60% solitary myomas. The subserosal location was the most represented with more than 84 nodules or 42.86%. In his Panel study M. Olicki *et al.* [4] and found that uterine fibroids were multiple in 2 out of 3 cases. According to Nourelhouda Chalal and Abbassia Demmouche [11] the majority of patients 51.70% had a polymyomatous uterus. Treatment of uterine fibroids is only offered to the patient in the event of a functional complaint and is decided based on several parameters: age, desire to become pregnant, the patient's wishes

and characteristics of the fibroids. There are several therapeutic options: medical treatment, always offered as first intention in cases of uncomplicated fibroids, surgical treatment and radiological treatment Panel M. Olicki [4].

#### 4.4. Therapeutics

In our study 93.30% of our patients had undergone a myomectomy. This rate can be explained by the fact that medical treatment was not considered as the first option. Note that the majority of our patients were of childbearing age. Ours is similar to that of Molima Ikeke and Wandje Omokende [7] 92.90% myomectomy. According to Nourelhouda Chalal and Abbassia Demmouche [11] the majority of patients 71.82% had a myomectomy. We did not perform radiological treatment of the fibroid during our study, as this technique was not available to us. During our study, the immediate surgical aftermath was complicated by malaria, 3 cases of lining infection anemia. No cases of death were recorded.

#### 5. Conclusion

At the end of our study, we note that this pathology is common in our health center. Its late management often requires mutilating and disappointing surgical treatments in the young female population. Early awareness of this population about the obstetric future would reduce the dramatic socio-economic consequences linked to this condition.

#### Conflicts of Interest

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

#### References

- [1] Rashid, I.N.I. (2022) Frequency and Complication of Uterine Fibromyoma in the City of Kongolo. *Journal of Social Science and Humanities Research*, **7**, 1
- [2] Fleischer, R., et al. (2008) Pathophysiology of Fibroid Disease: Angiogenesis and Regulation of Smooth Muscle Proliferation. *Best Practice & Research Clinical Obstetrics & Gynaecology*, **22**, 603-614. <https://doi.org/10.1016/j.bpobgyn.2008.01.005>
- [3] Poutignat, N. (2022) Non-Drug Treatments for Uterine Fibroids. High Health Authority Relevance Sheet March, 1.
- [4] Olicki, P.M., Pizzoferrato, A.C., Fauvet, R., Bouche, A.S., Turck, M., Bazille, C., Fohlen, A. and Pelage J.-P. (2020) MRI of Uterine Fibroids: MRI of Uterine Fibroids. *Journal of Diagnostic and Interventional Imaging*, **3**, 112-128. <https://doi.org/10.1016/j.jidi.2020.02.002>
- [5] Vilos, G.A., Allaire, C., Laberge, P.-Y. and Leyland, N. (2016) Management of Uterine Leiomyomas. *Journal of Obstetrics and Gynecology Canada*, **38**, S550-S576. <https://doi.org/10.1016/j.jogc.2016.09.063>
- [6] Dembele, S., Diassana, M., Macalou, B., Sidibe, A., Hamidou, A., Doumbia, F., Haïdara, M., Kane, F., Sylla, C., Bocoum, A. and Traore, S. (2023) Epidemioclinical and Therapeutic Aspects of Uterine Fibroids at the Fousseyni Daou Hospital in Kayes. *Health Sciences and Disease*, **24**, 107-111.

- [7] Ikeke, M. and Omokende, W. (2016) Subject: the Problem of Uterine Myoma in Women Operated On in the General Reference Hospitals of Kabondo and Makiso in Kisangani/DRC. *IJRDO—Journal of Health Sciences and Nursing*, **1**, 1.
- [8] Tiemtoré-Kambou, B.M.-A., Adama, B., et al. (2021) Myoma, Accidental Discovery Or Metrorrhagia: Who Says Better? *Pan African Medical Journal*, **38**, Article 388. <https://doi.org/10.11604/pamj.2021.38.388.20314>
- [9] Coulibaly, A., Sima, M., Traore, M.S., et al. (2020) The Place of Uterine Fibroids in Patients Who Consult the Obstetrics and Gynecology Department for Infertility CHU POINT G. Malian Journal of Science and Technology. *Series B. Human Medicine, Pharmacy, Animal Production*, **1**, 19.
- [10] Laghzaoui Boukaidi, M., Bouhya, S., Hermas, S., Bennani, O. and Aderdour, M. (2001) Epidemiology of Uterine Fibroids (About 690 Cases). *Maroc Médical*, **23**, 1.
- [11] Chalal, N. and Demmouche, A. (2013) Epidemiological Profile of Uterine Fibroids in the Region of Sidi Bel Abbes, Algeria. *Pan African Medical Journal*, **15**, 7. <https://doi.org/10.11604/pamj.2013.15.7.2690>
- [12] Lumbiganon, P., Rugpo, S., Phandhu-Fung, S., Laopaiboon, M., Vudikamraksa, N. and Werawatakul, Y. (1996) Protective Effect of Depotmedroxyprogesterone Acetate On Surgically Treated Uterine Leiomyomas: A Multicenter Case-Control Study. *BJOG: An International Journal of Obstetrics & Gynaecology*, **103**, 909-914. <https://doi.org/10.1111/j.1471-0528.1996.tb09911.x>
- [13] Parazini, F., La Vecchia, C., Negri, E., Cecchetti, G. and Fedele, L. (1988) Epidemiologic Characteristics of Women with Uterine Fibroids: A Case Control Study. *Obstetrics & Gynecology*, **72**, 853-857. <https://doi.org/10.1097/00006250-198812000-00008>