Journal of Gynecology and Obstetrics
2024, Vol. 12, No. 4, pp. 61-66
https://doi.org/10.11648/j.jgo.20241204.11

Research Article

Outcome of Pregnancy In Myomatous Uterus in the Gynecology-Obstetrics Department of the Ignace Deen Hospital of the Conakry University Hospital Centre, Guinea

Cont éIbrahima[1, *], Bah Elhadj Mamoudou[2], Soumah Aboubacar Fod éMomo[1], Diallo Boubacar Alpha[2], Sylla Ousmane[1], Sylla Ibrahima[1], Diallo Aboudourahamane[1], Sy Telly[1]

[1]Department of Obstetrics and Gynaecology, Ignace Deen National Hospital, University Hospital Centre, Conakry, Guinea
[2]Department of Obstetrics and Gynaecology, Donka National Hospital, University Hospital Centre, Conakry, Guinea

Abstract

Introduction: the association of myoma and pregnancy is a frequent entity, often prone to obstetric complications. The aim of this study was to analyse the impact of myoma on pregnancy, childbirth and the post-partum period. Patients and methods: this was a prospective descriptive and analytical study conducted over a 6-month period from 6 September 2022 to 5 March 2023 in the gynaecology and obstetrics department of Ignace Deen Hospital. It concerned pregnant women with uterine myomas who had agreed to take part in the study. Results: the frequency of pregnancy in a myomatous uterus was 5.58%. The average age of the pregnant women was 28, with extremes of 21 and 40. The most common age group was 31-35. Nearly 70% (69.86%) of the cases of fibroids associated with pregnancy were discovered by ultrasound. The location of the myomas was interstitial in 47.95% of cases. Medium-sized fibroids (6-10 cm) dominated our series (53.42% of cases). Of the 146 cases collected, 72% gave birth in the department, 77.78% by caesarean section. The indication for caesarean section Dystocic presentations (54.76%) were the major indication in more than half the cases. Over 70% of pregnant women gave birth without complications. These were dominated in the mother by miscarriage (20.93%) and premature delivery (16.27%). Fetal asphyxia (4.65%) and intrauterine growth retardation (4.65%) in the fetus. The study reported a significant association between size, location and the occurrence of obstetric complications (P value: 0.034; 0.009). Conclusion: the association of fibroma and pregnancy is a frequent entity and constitutes a high risk for the mother and the foetus. Morbidity is related to the location of the myoma and changes according to the term of the pregnancy. If pregnancy is to have a successful outcome, it is essential that pregnant women are aware of the importance of antenatal monitoring, with a view to early detection and appropriate management of any complications.

Keywords

Outcome, Myoma, Pregnancy, Ignace Deen, Guinea

[*]Corresponding author: conteib1976@gmail.com (Conté Ibrahima)

Received: 30 March 2024; **Accepted:** 5 August 2024; **Published:** 27 August 2024

1. Introduction

Uterine fibroids, benign tumours arising from the uterus, are very common in women of childbearing age. Its prevalence in the general population is between 20% and 50% of women of childbearing age [1, 2]. It is often associated with pregnancy [3]. The frequency of this association is between 3 and 13% according to Kltsky PC et al [4] and between 0.5 and 4% according to Osman A et al [3]. Their discovery in this context is all the more frequent as the age of patients at the time of their first pregnancy increases and the average number of ultrasounds performed during pregnancy has risen over the last 20 years [5].

Fibroids can be a source of obstetric complications at all stages of pregnancy. It can affect fertility and complicate pregnancy, delivery and the post-partum period [6]. These complications are essentially spontaneous miscarriages, placental disorders such as placenta previa and retro placental haematoma, premature deliveries and dystocic presentations [7]. This can be explained by both diagnostic and therapeutic difficulties. Correct antenatal monitoring remains essential not only to prevent complications during pregnancy but also to improve management.

The aim of this study was to evaluate the impact of myoma on pregnancy, childbirth and the post-partum period in our working context, and to compare our results with those in the literature.

2. Methods

Type and period of study: this was a descriptive and analytical study with prospective recruitment for a period of 6 months from 6 September 2022 to 05 March 2023 carried out in the gynaecology-obstetrics department of Ignace Deen Hospital.

Study population: the study covered all pregnant women with uterine myomas admitted to the Gynaecology-Obstetrics Department of Ignace Deen Hospital during the study period.

Selection criteria: the study concerned pregnant women with uterine myomas, regardless of gestational age or parity, admitted to the department for service and who had agreed to take part in the study. All pregnant women with uterine myomas who did not agree to take part in the study and those lost to follow-up in the department were excluded. We carried out an exhaustive census of all cases meeting the inclusion criteria. The variables studied were sociodemographic, clinical, therapeutic and prognostic characteristics.

Data collection, entry and analysis: data were collected using a pre-established and pre-tested survey form. The socio-demographic characteristics of the patients were recorded during an interview. Medical information relating to pregnancy, childbirth and the post-partum period was collected from the women's medical records. The data were analysed using SPSS version 22 software. The calculations focused on the mean, standard deviation and extremes for quantitative variables. For qualitative variables, the numbers and proportions were calculated. A p-value of less than 5% with a 95% confidence interval was used as the significance threshold.

Ethical considerations: before starting the study, we obtained the necessary authorisation from the head of our department. Ethical principles were strictly adhered to by obtaining informed consent, guaranteeing anonymity and confidentiality of all individual data.

3. Results

Frequency: out of 2617 pregnant women seen for consultation or delivery, 146 were myoma carriers, representing an incidence of 5.58%.

Table 1. *Breakdown of pregnant females by age.*

Age groups	Number	Percentage
21-25	9	6.16
26-30	25	17.12
31-35	60	41.10
36-40	52	35.62
Total	146	100

The average age is 28, with extremes of 21 and 40.

Table 2. *Circumstances of diagnosis and term of pregnancy.*

Circumstances de diagnostic	Number	Percentage
Ultrasound in prenatal consultation	102	69.86
Isolated pelvic pain	5	3.42
Metrorrhagia	6	4.11
Uterus larger than term	11	7.54
Per partum	22	15.07
Total	146	100
Term of pregnancy	Number	Percentage
First trimester	18	12.33
Second trimester	26	17.81
Third trimester	102	69.86
Total	146	100

More than 2/3 (69.86%) of cases of pregnancy-associated

fibroids were discovered during ultrasound scans performed during antenatal monitoring, compared with only 15.07% of cases per partum, mainly during caesarean sections. At the time of diagnosis, 69.86% of pregnancies were at term.

Table 3. Localization and size of fibroids.

Localization	Number	Percentage
Corporale		
Under serosa	35	23.97
Intramural	70	47.95
Submucosal	9	6.17
Total	114	78.08
Segmental/Isthmic		
Under serosa	21	14.38
Intramural	5	3.42
Submucosal	6	4.11
Total	32	21.92
Totaux	146	100
Myoma size		
1-5 cm	61	41.78
6-10 cm	78	53.42
11 and over	7	4.80
Totaux	146	100

Almost 4/5 of the nuclei diagnosed during the study were corporal, i.e. 78.08%, of which 47.95% were interstitial, compared with only 3.42% of the same tunica in the lower segment. Medium-sized fibroids (6-10 cm) dominated our series, accounting for 53.42% of cases.

Table 4. Route of delivery and indications for caesarean section.

Localization	Number	Percentage
Delivery		
Vaginal delivery	24	22.22
Caesarean section	84	77.78
Total	108	100
Indication de césarienne		
Dystocic presentations	46	54.76
Scarred uterus	20	23.81
Myoma prævia	9	10.72
Fetal asphyxia	5	5.95
Placenta previa	4	4.76
Total	84	100

Out of 146 patients registered, 106 gave birth in the department, including 2 cases of twin pregnancy. Of the 84 (77.78%) patients who gave birth by caesarean section, more than half (54.76%) were indicated for dystocic presentation, 21.81% for scar uterus and the remainder for myoma previa (10.72%), foetal asphyxia (5.95%) and placenta previa (4.76%).

Table 5. Pregnancy outcome and complications during pregnancy, childbirth and the immediate post-partum period.

Outcome of pregnancy	Number	Percentage
Favourable	103	70.55
Unfavourable	43	29.45
Total	146	100
Complications	Number	Percentage
Maternal complications	31	
Spontaneous miscarriage	9	20.93
Threat of premature delivery	11	25.58
Retro-placental haematoma	1	2.32
Placenta previa	4	9.30
Aseptic necrobiosis	2	4.65
Delivery haemorrhage	4	9.30
Fetal complications	12	
Prématurity	7	16.27
Fetal sphyxia	2	4.65
Intrauterine growth retardation	2	4.65
Fetal death in utero	1	2.32
Total	43	100

Out of 146 pregnant women with myomas, 103 carried their pregnancies to term and gave birth without complications (70.55%). For the mother, the complications were miscarriage (20.93%), premature delivery (25.58%), placenta previa (9.30%) and delivery haemorrhage (9.30%). The fetus suffered prematurity (16.27%), fetal asphyxia (4.65%), intrauterine growth retardation (4.65%) and intrauterine fetal death (2.32%).

Table 6. Link between the localization and size of myomas and the occurrence of complications.

Localization, size of myomas and the occurrence of complications	Favorable		Defavorable		P value
	n	%	n	%	
Myomas localization					
Sub-serous body	138	47.26	78	26.71	0.009
Intramural body	173	59.24	113	38.69	
Body-submucosal	112	38.35	52	17.81	
Segment-sub serous	124	42.46	64	21.91	
Intramural segment	108	36.92	48	16.43	
Segment-submucosal	106	36.30	46	15.75	
Myoma size					
1 - 5	164	56.16	104	35.61	0.034
6 - 10	181	61.98	112	38.35	
11 and over	110	37.67	50	17.12	

Our study reports a significant link between size, location and the occurrence of obstetric complications (p value: 0.034; 0.009).

4. Discussion

In this series, the frequency of the association fibroid + pregnancy (5, 58%), seems slightly higher than that reported by Lopes S. et al [8], in 2014 (3.87%). This difference can be explained by the fact that the cases reported in their study were essentially symptomatic fibroids, whereas in the present study, all pregnant women were systematically diagnosed by ultrasound and/or caesarean section. The average age of the pregnant women was 28, with extremes of 21 and 40. The 31-35 age group was the most represented. This result was comparable to that of Massoud in Algeria, with an average age of 33 [10]. The sample was therefore made up of relatively young pregnant women, as was also concluded by Zeghal D et al in Tunisia [6] and Tchente N C et al in Cameroon [9] with mean ages of 32 and 31 respectively. Geum Seon Sohn found that the closer one got to the menopause, the more frequent myomas became [11].

More than 2/3 (69.86%) of cases of fibroids associated with pregnancy were discovered by ultrasound during antenatal care, compared with only 15.07% during caesarean section. At the time of diagnosis, 69.86% of pregnant women were at term.

Among recent advances, ultrasound has made it possible to identify fibroids and to determine their prevalence. As a result, asymptomatic fibromyomas discovered by systematic ultrasound may contribute in part to the increased frequency of fibroids associated with pregnancy [12].

Nearly 4/5 of the nuclei diagnosed during the study were corporal, i.e. 78.08%, of which 47.95% were interstitial, compared with only 3.42% of the same tunica in the lower segment.

The study noted a high frequency of corporal myomas, as shown by N'Gbesso et al [13] in 2003. In the majority of cases, these are interstitial myomas. This finding was also reported by Zeghal D et al [6], who found 68% of interstitial myomas, mainly corporal.

Medium-sized fibroids (6-10 cm) dominated our series, accounting for 53.42% of cases. F Levast [5] noted that 80% of myomas were of medium size.

Caesarean section was the most frequent mode of delivery in our study (77.78%), a much lower figure than that found by Atef B et al [14] who noted 47.8% caesarean sections. For Klatsky PC et al [4], the caesarean section rate increased according to the size and location of the myomas.

In this study, the main indication for caesarean section was dystocic presentation (54.76%), followed by scar uterus in 21.81% of cases.

These results can be explained by the occurrence during pregnancy of irregular presentations, vicious insertion of the placenta or during delivery of dynamic dystocia and foetal asphyxia.

Complications in the mother were dominated by miscarriage in 20.93% of cases.

This result is similar to that of Sagoo B et al [15] who noted 21.8% of miscarriages.

The frequency of miscarriage varies in the literature from 4%

to 18%. In fact, this figure is usually given as the risk of miscarriage during normal pregnancies; the location of the myoma must be taken into consideration; submucosal myomas can cause mechanical and vascular endometrial alterations and induce alterations to the stroma such as atrophy or ulceration reducing the chances of placental development. [16].

The rate of threatened premature delivery (25.58%) reported in our series was higher than that found by Levast F et al [5] who reported 17.02%.

We noted 4 cases of delivery haemorrhage, representing 9.30% of complications. Walker WJ [12] reported 7.3% in women with a fibroid compared with 1.8% in the control population.

The most frequent complication during delivery in patients with myomas is delivery haemorrhage due to uterine atony (2.5 versus 1.4%) [17].

Zeghal D. et al [6] reported that 25% or 21 cases of delivery were complicated by delivery haemorrhage, including 9 by vaginal delivery and 12 by caesarean section. The occurrence of these haemorrhages could be explained by the difficulties of uterine retraction and involution associated with the fibroid.

Our rate of premature delivery (16.27%) was higher than that of Tchente [9] (8.5%) and Aharoni [18] (17%).

In our series, foetal asphyxia was reported in 4.65% of cases, intra-uterine growth retardation in 4.65% and intra-uterine foetal death in 2.32% of cases.

The study by Aydeniz B [19] showed that submucosal fibroids opposite the placental insertion increase the risk of intrauterine growth retardation (14% versus 6.6%) and retroplacental haematoma (3.2% versus 1.3%). The literature emphasises that certain locations and the size of fibroids are factors involved in the occurrence of a number of complications during pregnancy, delivery and the post-partum period [20]. The study reported a significant association between size, location and the occurrence of obstetric complications (P value: 0.034; 0.009).

5. Conclusion

The association of fibroma and pregnancy is a frequent entity and constitutes a high risk for the mother and the foetus. It was discovered more frequently in relatively young subjects, mainly during antenatal follow-up.

Its morbidity was related to the location of the nuclei and the term of the pregnancy.

Early discovery of the diagnosis and regular prenatal monitoring of carriers are essential for early detection and management of complications. This will lead to a reduction in the maternal-foetal morbidity associated with this condition. Ultrasound has a key role to play in this process.

Conflicts of Interest

The authors declare no conflicts of interest.

References

[1] Kahn V, Pelage JP, Marret H. Embolisation in the treatment of myomas. Medical Press. 2013; 42(7‑8): 1127–1132.

[2] Derrien J, Lucot JP, Panel P, Pelage JP, Giraudet G, De Jesus I, et al. Actualisation de la prise en charge des myomes: recommandations pour la pratique clinique—Texte des recommandations. [Update on the management of myomas: recommendations for clinical practice - Text of the recommendations] J Gyn écologie Obst étrique Biol Reprod. 2011; 40: 953–961.

[3] Ali O, Ibrahim A, Kassidi F, Babahabib A, Kouach J, Moussaoui D, et al. Myome praevia sur grossesse men ée à terme: A propos d'un cas et revue de la littérature. [Myoma previa in term pregnancy: A case report and review of the literature] Int J Innov Appl Stud. 2015; 11(2): 303-306.

[4] Klatsky PC, Tran ND, Caughey AB, Fujimoto VY. Fibroids and reproductive outcomes: a systematic literature review from conception to delivery. Am J Obstet Gynecol 2008; 198: 357–66.

[5] Levast F, Legendre G, Bouet PE, Sentilhes L.: Prise en charge des myomes ut érins durant la grossesse [Management of uterine myomas during pregnancy] Gyn écologie Obst étrique & Fertilit é44 (2016) 350–354. https://doi.org/10.1016/j.gyobfe.2016.04.007

[6] Zeghal D, Ayachi A, Mahjoub S, Boulahya G, Zakraoui A, Ben Hmid R, et al. Fibrome et grossesse: les complications. [Fibroids and pregnancy: complications] Tunis M édicale. 2012; 90(4): 286–90.

[7] Aalalou H, Saoud MK, Mamouni N, Errarhay S, Bouchikhi C, Abdelaziz B. Myome ut érin prævia sur grossesse à terme: à propos d'un cas et revue de la littérature. [Uterine myoma previa in term pregnancy: case report and review of the literature] Int J Med Rev Case Rep. 2021; 5(6): 59–61. https://doi.org/10.5455/IJMRCR.myome-172-1606753127

[8] Lopes P, Thibaud S, Simonnet R, Boudineau M. Fibrome et grossesse: quels sont les risques ?: Recommendations pour la pratique clinique: Prise en charge des fibromes ut érins [Fibroids and pregnancy: what are the risks?: Recommendations for clinical practice: Management of uterine fibroids] Cedex. J Gynecol Obstet Biol Reprod 1998; 28(7): 772-777.

[9] Tchente Nguefack C, Fogaing A. D, Tejiokem M. C, Evolution de la grossesse sur un ut érus fibromyomateux chez un groupe de femmes camerounaises, [Evolution of pregnancy in a fibromyomatous uterus in a group of Cameroonian women] J. Gynecol. Obstet. Biol. Reprod, 2009, 38 (6): 493-99.

[10] B énilde Marie-Ange Tiemtor é-Kambou, Adama Baguiya, Prosper David Lamien, Adjiratou Koama, Aischa Madina Napon, Yombou é Abel Bamouni, Ouss éni Diallo, Adama Gnoumou, Ciss é Rabiou Myome, d écouverte fortuite ou m étrorragie: qui dit mieux? [Myoma, chance discovery or metrorrhagia: who's better?] Pan African Medical Journal. 2021; 38(388). https://doi.org/10.11604/pamj.2021.38.388.20314

[11] Sohn GS, Cho S, Kim YM, Cho C-H, Kim M-R, Lee SR et al. Current medical treatment of uterine fibroids. Obstet Gynecol Sci. 2018; 6(2): 192- 201.

[12] Walker WJ, McDowell SJ. Pregnancy after uterine artery embolization for lyomyomata: a series of 56 completed pregnancies. Am J Obstet Gynecol 2006; 195: 1266–71.

[13] N'Gbesso R. D, N'Goan N, Coulibali A, Mushi M, Apport de l'échographie, « masses utérines, vaginales et pelviennes chez la femme noire », [Uterine, vaginal and pelvic masses in black women], Cahier de Santé, 2003: 145-150.

[14] ATEF B, AISSIA M. Association fibrome utérin et grossesse: à propos de 23 cas. [Association of uterine fibroids and pregnancy: 23 cases.] Tunisie Médicale, 2005, 83: 112-115.

[15] Sagoo B, Ng KYB, Ghaleb G, Brown H. Spontaneous expulsion of intramural fibroid six weeks after emergency caesarean section. Case Rep Obstet Gynecol. (2015) 5: 64-70.

[16] A. Chauveaud-Lambling, H. Fernandez. Fibrome et grossesse [Fibroids and pregnancy] EMC-Gynécologie Obstétrique 1 (2004) 1 (3) 127–135.

[17] Hayat Aalalou Mohammed Karam Saoud, Nisrine Mamouni, Sanaa Errarhay, Chahrazad Bouchikhi and Banani Abdelaziz International Journal of Medical Reviews and Case Reports (2021) 5(6): 59-61.

[18] Adisso S, Hounsossou H, Alle I, Adisso E, Takpara I, Alihonou E. Quelle issue pour la grossesse jeune dans un uterus Myomateux? [What is the outcome of a young pregnancy in a myomatous uterus?] Journal de la société de biologie clinique du bénin, 2014; n °021; 13-17.

[19] Aydeniz B, Wallwiener D, Kocer C, Grischke EM, Diel IJ, Sohn C, et al. Significance of myoma-induced complications in pregnancy. A comparative analysis of pregnancy course with and without myoma involvement. Z Geburtshilfe Neonatol 1998; 202: 154–8.

[20] Legendre G, Fernandez H. Actualisation de la prise en charge des myomes. [Update on the management of myomas] Lett Gynécologue. 2012; 370: 26–8.