Journal of Cardiovascular Disease Research

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

A HOSPITAL BASED CROSS SECTIONAL STUDY OF FETOMATERNAL OUTCOME IN PREGNANCIES COMPLICATED BY FIBROID IN A TERTIARY CARE HOSPITAL

Dr. Priyanka Y[1], Dr. Dipti Markam[2], Dr. Kirti Nagesh[3*]

[1]Senior Resident, Department of Obstetrics and Gynecology, NSCB Medical College, Jabalpur.

[2]Senior Resident, Department of Obstetrics and Gynecology, NSCB Medical College, Jabalpur.

[3*]Senior Resident, Department of Obstetrics and Gynecology, NSCB Medical College, Jabalpur.

Corresponding Author: Dr. Kirti Nagesh

Senior Resident, Department of Obstetrics and Gynecology, NSCB Medical College, Jabalpur.

G Mail: kumud.kalinagesh@gmail.com

Abstract:

Introduction: Uterine fibroids/Leiomyoma are uterine smooth muscle tumours that are benign. In the reproductive age group, the incidence ranges from 20% to 50%. Pregnancy rates range from 0.1% to 10%. Women of reproductive age with fibroids have been linked to menstruation abnormalities, pelvic pain, infertility, and obstetric complications/bad obstetric outcome.[1] Miscarriage, premature labor, APH, red degeneration, malpresentation, malposition, FGR, LBW, PPH, and an increased incidence of births and caesarean hysterectomy are all obstetric issues related with fibroids in pregnancy.

Materials and Methods: A hospital based cross-sectional study was conducted among pregnant women with documented uterine fibroid who was admitted for any complication or delivered in the department of obstetrics and gynaecology, NSCB Medical College, Jabalpur from February 2019 to January 2020 in the department of obstetrics and gynaecology in collaboration with department of pediatrics, NSCB Medical College, Jabalpur. After obtaining informed consent from the participants, the detailed clinical history including spontaneous abortion, preterm labour, premature rupture of membranes, placenta previa, abruptio Placentae, malpresentation, dysfunctional labour, degeneration, maternal weight and sociodemographic profile were then recorded.

Results: In this study, over a period of one year (February 2019 to January 2020) there were 8600 deliveries and 92 cases with fibroid uterus with pregnancy were included in the study. Majority of the patient were in the reproductive age range of 30-39 years (73.9%) and 20-29 years (23.9%). Fibroid are found to be more common in primi. Out of 46 patients, 35 (76.1%) were primi followed by P1 (15.2%) and ≥P2 (8.7%). Complications were observed in 20.9%. Atonic PPH occurred in 6.97%; placenta previa was associated with 6.97%, degeneration was seen in 2.32%; abruptio placentae in 2.32%, malpresentation in 2.32%. No maternal death was observed in this study.

Conclusion: Pregnancy with myoma is often considered a high-risk pregnancy as it is associated with many complications like abortion, preterm labour, premature rupture of membrane, abruptio

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

placentae, placenta previa, pain due to degeneration, intrauterine growth restriction, malpresentation, dysfunctional labour, PPH, decreased Apgar score, fetal anomalies, fetal death, etc. Pregnant women with myoma can be advised for regular ANC along with TAS for early diagnosis and management of complication. Casearean myomectomy in selected cases may be beneficial.

Key Words: Uterine fibroids, preterm labour, premature rupture, Casearean myomectomy.

INTRODUCTION

Uterine fibroids/Leiomyoma are uterine smooth muscle tumours that are benign. In the reproductive age group, the incidence ranges from 20% to 50%. Pregnancy rates range from 0.1% to 10%.[1] Women of reproductive age with fibroids have been linked to menstruation abnormalities, pelvic pain, infertility, and obstetric complications/bad obstetric outcome.[1] Miscarriage, premature labor, APH, red degeneration, malpresentation, malposition, FGR, LBW, PPH, and an increased incidence of births and caesarean hysterectomy are all obstetric issues related with fibroids in pregnancy. The formation of uterine fibroids during pregnancy appears to be caused by ovarian hormones.[2]

Conservative medical therapy during pregnancy is the primary option, as pregnancy-preserving myomectomy is generally risky due to the possibility of pregnancy loss or haemorrhage, as well as hysterectomy.[2] Submucosal and retroplacental fibroids are the most likely to cause complications.[3] Though the caesarean section rate is higher in women with fibroids, a trial of labour is not regarded a contraindication. Large fibroids and fibroids in the lower uterine segment and cervix are the most prevalent causes of Caesarean section, resulting in labour dystocia and obstructed childbirth.[4]

Because of its prevalence during the reproductive years and associated with numerous problems, myoma has a significant impact on a pregnant woman's obstetrical result.[5] A comprehensive research investigation of myoma in pregnancy and its complications is desperately needed. As a result, it was decided to inspect the obstetric outcome of myoma pregnancy in tertiary care hospital.

MATERIALS AND METHODS

Study design: A hospital based cross-sectional study.

Study Duration: February 2019 to January 2020.

Study location: Department of obstetrics and gynecology, NSCB Medical College, Jabalpur.

A hospital based cross-sectional study was conducted among pregnant women with documented uterine fibroid who was admitted for any complication or delivered in the department of obstetrics and gynaecology, NSCB Medical College, Jabalpur from February 2019 to January

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

2020 in the department of obstetrics and gynaecology in collaboration with department of pediatrics, NSCB Medical College, Jabalpur.

Inclusion Criteria: All the Pregnant women with uterine fibroid who was admitted for any complication or delivered in the department of obstetrics and gynaecology, NSCB Medical College, Jabalpur included in this study until the sample size was reached.

Exclusion Criteria: Patients with twin pregnancy, polyhydramnios or with any systemic diseases like diabetes, hypertensive disorder in pregnancy or any chronic illness, patients who refused to give written informed consent were excluded.

After obtaining informed consent from the participants, the detailed clinical history including spontaneous abortion, preterm labour, premature rupture of membranes, placenta previa, abruptio Placentae, malpresentation, dysfunctional labour, degeneration, maternal weight and sociodemographic profile were then recorded. Following the socio demographic and clinical characteristics, general physical examination (pallor, oedema, neck glands, thyroid) and systemic examination and obstetrical examination was carried out for the participants. Fetal outcome was recorded in terms of:

(a) Gestational age,

(b) viability- live born/still born,

(c) Birth weight,

(d) Apgar score,

(e) Admission in NICU-admitted/not admitted,

(f) Congenital anomaly,

(g) Any neonatal death,

(e) Mode of delivery: vaginal/assisted vaginal delivery/caesarean section,

(f) Complications if any.

All the routine investigations including complete haemogram, urine routine examination, liver and kidney function tests, ABO grouping and Rh typing, blood sugar estimation, thyroid profile along with necessary investigations like ultrasonography (trans-abdominal) were also performed.

Statistical analysis: Data was analysed using SPSS for windows version 21(IBM. Corp 1995, 2012). Descriptive statistical tools like mean, percentage and proportion were used. Association between preterm labor and fetomaternal outcome were analysed using Chi square test. P value<0.05 was considered as significant.

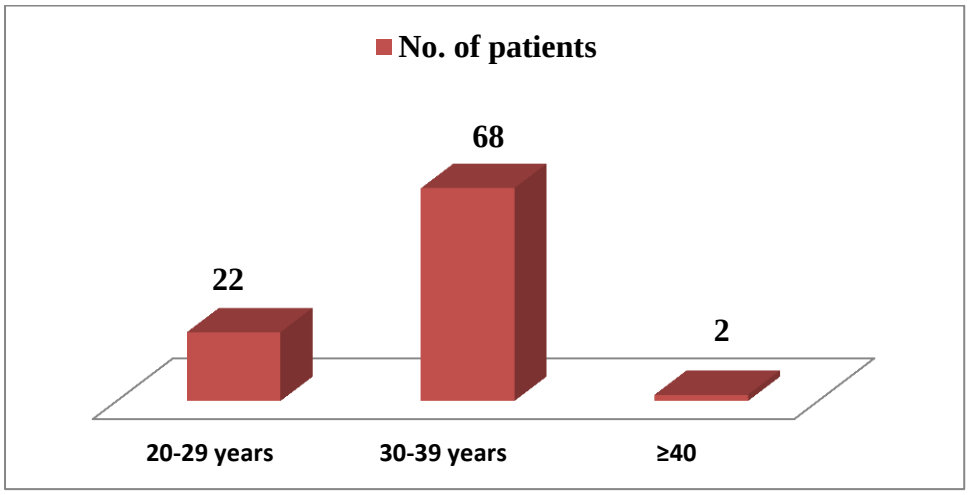
ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

RESULTS

In this study, over a period of one year (February 2019 to January, 2020) there were 8600 deliveries and 92 cases with fibroid uterus with pregnancy were included in the study.

S.No	Age group (years)	No. of patients and percentage (%)
1	20-29 years	22 (23.9)
2	30-39 years	68 (73.9)
3	≥40	2 (2.2)

Table 1: Age Distribution (N=92)



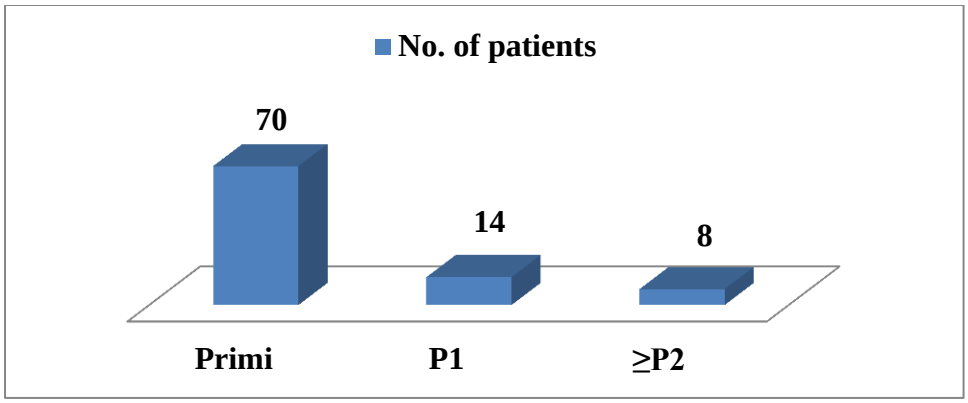
Graph 1: Age Distribution

Majority of the patient were in the reproductive age range of 30-39 years (73.9%) and 20-29 years (23.9%).

S.No	Parity	No. of patients and percentage (%)
1	Primi	70 (76.1)
2	P1	14 (15.2)
3	≥P2	8 (8.7)

Table 2: Parity wise distribution

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

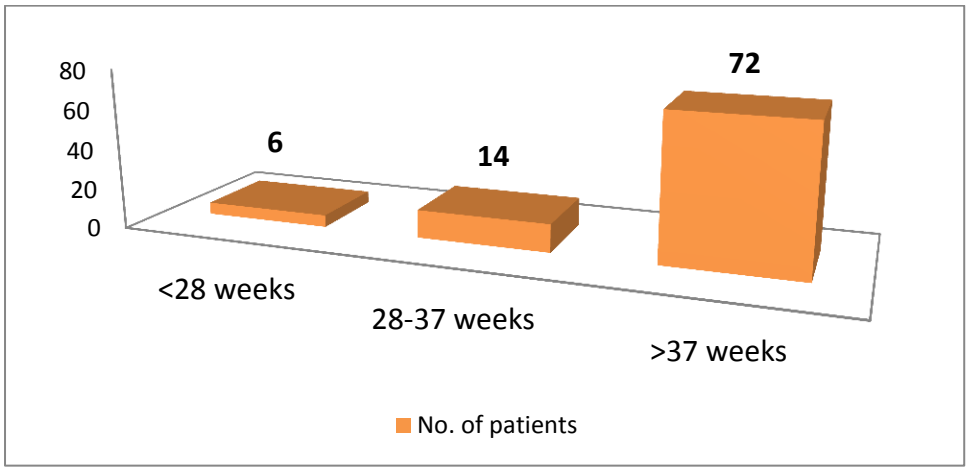


Graph 2: Parity wise distribution

Fibroid are found to be more common in primi. Out of 46 patients, 35 (76.1%) were primi followed by P1 (15.2%) and ≥P2 (8.7%).

S.No	Gestational age (weeks)	No. of patients and percentage (%)
1	<28 weeks	6 (6.5)
2	28-37 weeks	14 (15.2)
3	>37 weeks	72 (78.3)

Table 3: Duration of gestation at diagnosis



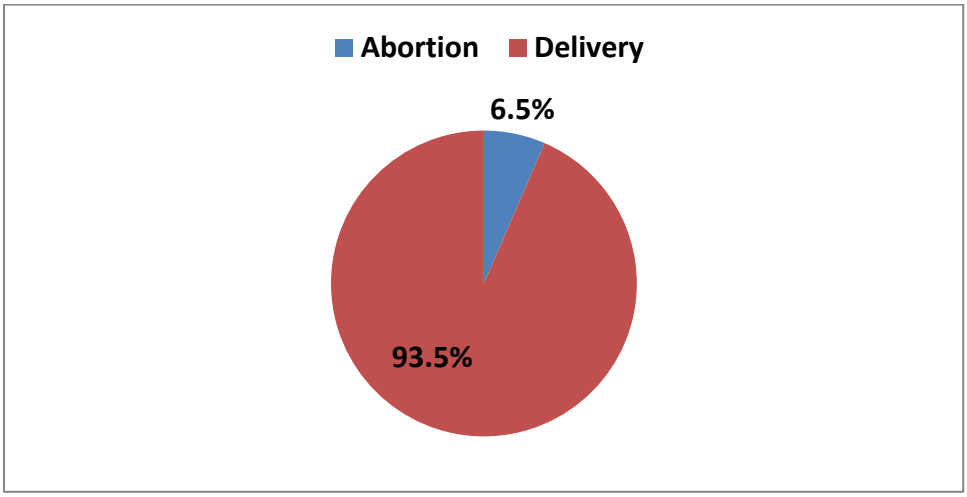
Graph 3: Duration of gestation at diagnosis

Out of 92 patients, 72 (78.3%) patients were admitted at term pregnancy followed by 14(15.2%) patient were between 28-36 weeks and 6(6.5%) patient were <28 weeks.

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

S.No	Pregnancy outcome	No. of patients and percentage (%)
1	Abortion	6 (6.5)
2	Delivery	86 (93.5)

Table 4: Pregnancy outcome



Graph 4: Pregnancy outcome

Out of 46 patients, 86 (93.5%) patients delivered while 6 patients (6.5%) undergo spontaneous abortion.

S.No	Types	No. of patients and percentage (%)
1	Intramural	44 (47.8)
2	Submucosal	32 (34.8)
3	Subserosal	16 (17.4)

Table 5: Type of myoma

Intramural myoma was the commonest type of myoma accounting to 47.8% followed by submucous in 34.8%, subserosal in 17.4%.

S.No	Modes of delivery	No. of patients and percentage (%)
1	Cesarean section	60 (69.76)
2	NVD	22 (25.58)
3	Instrumental	4 (4.65)

Table 6: Mode of delivery

69.76% of the pregnant women underwent CS, followed by 25.58% NVD, and 4.65% by instrumental delivery.

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

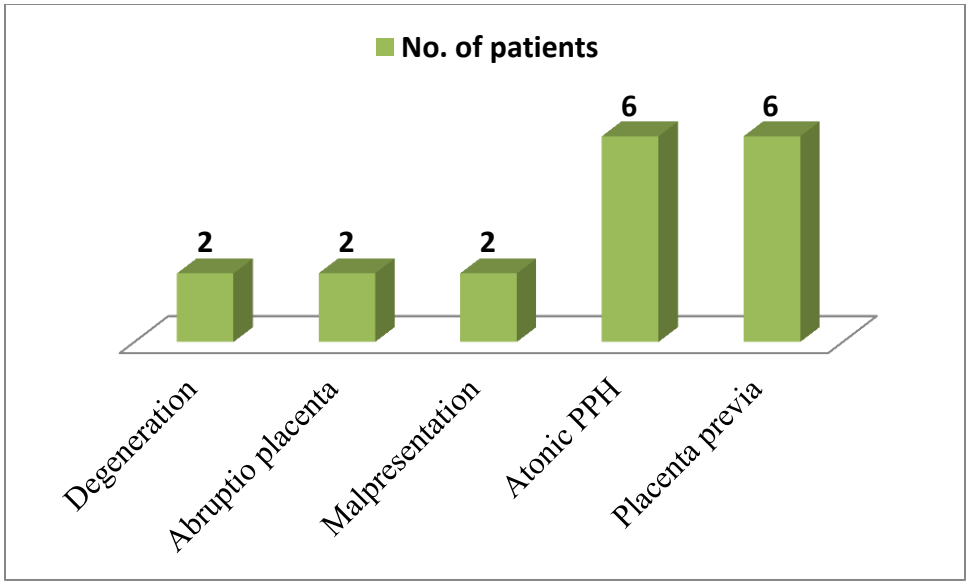
Neonatal outcome	No. of patients and percentage (%)
Birth weight (kg)	
<2.5 kg	6 (6.9)
≥2.5 kg	80 (93.02)
IUGR	6 (6.97)
IUFD	4 (4.6)
NICU Admission	4 (4.6)
Early neonatal death	2 (2.32)

Table 7: Neonatal outcome

Birth weight less than 2.5 kg were observed in 6.9%, IUGR was seen in 6.9%, IUFD and NICU admission was seen in 4.6%.

S.No	Complications	No. of patients and percentage (%)
1	Degeneration	2 (2.32)
2	Abruptio placenta	2 (2.32)
3	Malpresentation	2 (2.32)
4	Atonic PPH	6 (6.97)
5	Placenta previa	6 (6.97)

Table 8: Complication during pregnancy and delivery



Graph 5: Complication during pregnancy and delivery

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

Complications were observed in 20.9%. Atonic PPH occurred in 6.97%; placenta previa was associated with 6.97%, degeneration was seen in 2.32%; abruptio placentae in 2.32%, malpresentation in 2.32%. No maternal death was observed in this study.

DISCUSSION

Shahida et al observed that 64% of fibroid patient with myoma belonged to the age group of 30-34 years. 55% of patient were primiparous. Aktaret al observed that pregnant women with myoma ranged from 24 to 40 years and median age was 30 years. Saha et al also found that the highest incidence was found in those patient with more than 30 years age group.[6] Hini et al also found that majority of the pregnant women with myoma belonged to the age group between 25-35 years. They also found that women in the study group were mostly nulliparous than controls (56.25% vs 12%).[7] Ramalingamet al found that fibroid were more frequent in multigravida 73.3% compared to primigravida 26.6%. Radhika et al found that fibroid were more frequent in multigravida compared to primi. Majeed et al observed that pregnant women with myoma belong to the age group 25 to 35 years.

In the present study malpresentation breech was observed in 3 (6.6%) pregnant women with myoma. Hina et al found an increased association of breech presentation with myoma (38.46%). Tasleem et al observed malpresentation in 12% of the patient. Saha et al found malpresentation in 14% of the pregnant women with myoma. Aktar et al observed malpresentation in 5.4%. In the present study, degeneration of myoma was observed in 1 (2.2%) pregnant woman. Tasleemet al observed red degeneration in 4%. Sailesh et al in their study observed an increase in size of myoma and in echo texture on sonography and had acute pain due to degeneration in 11%. Aktar et al found degeneration in 14.5%.[8]

Adeniz et al in their study showed that retro placental submucous myomas increased the risk of fetal growth restriction (14% versus 6.6%). In the present study fetal growth restriction was observed in 4 (8.7%) pregnant women with myomas. Noor et al observed IUGR in 6.66%. Saha et al found fetal growth restriction in 14% of the pregnant with myoma. Aktaret al observed IUGR in 3%. In the present study 31 (67.4%) pregnant women underwent CS.[9] In the present study, the rate of CS was markedly increased. Misbahet al also found a similar increase in CS rate in women with myoma 63.5%. Shella et al observed 70% of the pregnant women with myoma were delivered by CS. Ramalingam et al observed that CS was performed in 16 (59.2%) pregnant women with myoma. Akhtar et al also found increase in CS in the pregnant patient with myoma 31 (56.36%).[10]

CONCLUSION

A uterine fibroid pregnancy is considered a high-risk pregnancy. The majority of them are asymptomatic, but depending on their position and size, they can have a deleterious effect on the course of pregnancy and labour. Myoma is the most frequent benign pelvic tumour associated with women of reproductive age, usually after the age of 30. Fibroids during pregnancy increase

ISSN: 0975-3583,0976-2833 VOL14, ISSUE 06, 2023

the risk of CS because of the high incidence of dysfunctional labour and malpresentation. Abortion, preterm labor, premature rupture of membranes, abruptio placentae, placenta praevia, pain due to degeneration, intrauterine growth restriction, malpresentation, dysfunctional labor, PPH, decreased Apgar score, foetal anomalies, foetal death, and other complications are common in myoma pregnancy. Pregnant women with myoma can be advised for regular ANC along with TAS for early diagnosis and management of complication. Casearean myomectomy in selected cases may be beneficial.

REFERENCES

1. Sarwar I, Habib S, Bibi A, Malik N, Parveen Z. Clinical audit of foetomaternal outcome in pregnancies with fibroid uterus. J Ayub Med Coll Abbottabad 2012;24:79-82.
2. Parazzini F, Tozzi L, Bianchi S. Pregnancy outcome and uterine fibroids. Best Prac Res Clin Obstetri Gynaecol (2015), doi: 10.1016/j.bpobgyn.2015.11.017
3. Lam S-J, Best S, Kumar S. The impact of fibroid characteristics on pregnancy outcome. Am J Obstet Gynecol 2014;210:20.
4. Poovathi M, Ramalingam R. Maternal and Foetal Outcome in Pregnancy with Fibroids: A Prospective Study. Int J Sci Stud 2016;3(11):169-172.
5. 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;198:357-366.
6. Lam SJ, Best S, Kumar S. The impact of fibroid characteristics on pregnancy outcome. Am J Obstet Gynecol 2014;211:395.e1-5.
7. J. Shahida, G. Rinku, Devi Sapna. ICV: 83.27. *JMSCR* 5(5):15543-15546.
8. Radhika BH, Kusuma Naik, Shreelatha S, Harshini Vana. Pregnancy Outcome in Patients with Uterine Fibroids. Journal of clinical and diagnostic research 2015;9(10):1-3.
9. Sarwar I, Habib S, Bibi A, Malik N, Parveen Z. clinical audit of foeto maternal outcome in pregnancies with fibroid uterus. Journal of Ayub Medical College, Abbottabad:JAMC 2012;24(1):79-82.
10. Sheiner E, Bashiri A, Levy A, Hershkovitz R, Katz M, Mazor M. Obstetrics Characteristics and perinatal outcome of pregnancies with uterine leiomyomas. J Reprod Med 2004;49:182-186.