

ORIGINAL ARTICLE

To Assess the Impact of Fibroids on Pregnancy Outcome

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ABSTRACT

Objective: To assess the impact of fibroids on pregnancy outcome.

Study Design: A retrospective descriptive study.

Place and Duration of Study: The study was conducted at department of Obstetrics & Gynecology during a period of 2 years from 1st January 2017 to 31st December 2018.

Materials and Methods: All pregnant patients with fibroids ≥ 3 cm either diagnosed during antenatal period or incidentally during cesarean section were included in this study. Data regarding obstetrical outcome was extracted from the maternity ward record. Maternal age, parity, obstetrical complications, mode of delivery and indications for caesarean section were noted. Neonatal outcomes were ascertained from the maternity record and chart review. Results were summarized as %age, average and presented as tables using MS Excel version 13.

Results: During the study period 38 pregnant women with fibroid are included in the study. Major proportion of patients with fibroid were in age group of 30-35 years. Obstetrical complications observed were; placental abruption (5.26%), PPH (15.78%), Obstructed labor (5.26%), prolonged labor (28.94%), abdominal pain (10.52%), preterm labor (2.63%) and malpresentation (2.63%). Miscarriages during early 2nd trimester were recorded in (5.26%) cases. Caesarean section was required in 69.44% cases. One lady ended up in Cesarean Hysterectomy due to intractable bleeding during c/section. During the course of pregnancy (21.05%) women with fibroid uterus remained asymptomatic. Fetal outcome was good with (88.88 %) alive babies, (5.55%) NND, (2.77%) IUD and (2.77%) neonatal intensive care unit (NICU) admission were recorded.

Conclusion: Pregnancies with fibroids are associated with increased risk of fetomaternal complications. Pregnant women with myoma may have frequent antenatal visits in a consultant led clinic and well defined care pathways. Significant number of still birth due to placental abruption associated with large myoma may warrant elective caesarean section at relatively earlier gestational age.

Key Words: *Caesarean Hysterectomy, Fibroid, Myoma, Neonatal outcome, Obstetrical outcome.*

Introduction

Fibroid is the most common benign tumor of the female internal genital organs, affecting 20%–60% of young women.¹ Incidence of fibroids varies from 0.1% to 12.5%² As most fibroids are asymptomatic, the true prevalence of fibroids may be greatly higher.³ Fibroid is the most common smooth muscle tumor of the uterus seen in child bearing age and if associated with pregnancy may adversely affect the

outcome of pregnancy. The incidence of fibroids in pregnancy reported ranges from 0.1 to 10.7% of all pregnancies and increases with increasing maternal age.⁴ Fibroids may negatively affect fertility and outcome of pregnancy.¹ Myoma are associated with increased risk of spontaneous abortion, antepartum hemorrhage, placental abruption, malposition of the fetus, foeto-pelvic disproportion, premature rupture of membranes, retention of the placenta, postpartum hemorrhage (PPH), preterm delivery, low birth weight infants, dysfunctional labor, and increased need to cesarean deliveries.^{5,6,7,8} About 10-40% of women with fibroid uterus developed complications during pregnancy.⁹ Large size fibroids and submucosal fibroids are associated with more complications.¹⁰ Although fibroid uterus is associated with many adverse events during pregnancy, but still the perinatal outcomes in these patients tend to be fair.¹¹

As an increasing number of women with fibroid

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during pregnancy is observed, therefore the study was aimed to find out the obstetrical outcome of the pregnancies complicated with fibroid presenting in BMCH Quetta to help developing local guidelines and protocols for management of these women in order to reduce the risk associated with myoma. So, a study was planned to assess the impact of fibroids on pregnancy outcome in a local set up.

Materials and Methods

This retrospective study was carried out at department of Obstetrics & Gynecology Bolan medical complex hospital, Quetta, for the period of 2 years from 1st January 2017 to 31st December 2018. All pregnant patients with fibroids \geq 3cm either diagnosed during antenatal period or incidentally during cesarean section were included in this study. Patients with subserous fibroids of less than 3cm were excluded from the study. The permission of institutional ethical review committee was obtained and all ethical issues were addressed. Data regarding obstetrical outcome was extracted from the maternity ward record. Maternal age, parity, obstetrical complications (miscarriage, preterm labor, abdominal pain, prolonged labor, malpresentation, cesarean hysterectomy, PPH, Placental abruption), mode of delivery and indications for caesarean section were noted. Neonatal outcomes (Alive, IUD, NND, Admissions in neonatal ward) were ascertained from the maternity record and chart review. Results were summarized as %age, average and presented as tables using MS Excel version 13.

Results

During the study period, 38 women were identified with fibroid uterus during pregnancy. During antenatal visits, 32 women (84.21%) were diagnosed with fibroid uterus, while in 6 women (15.78%), myoma was an incidental finding during cesarean section; contributory to the cause of operative delivery. Most of the women in our study population (34.21%) were in 30-35 years age group as shown in table I. Fibroids were more frequent (86.84 %) in multigravida as compared to primigravida (13.15%) shown in Table I. Common obstetrical complications encountered in pregnancies with myoma were; placental abruption 2(5.26%), PPH 6(15.78%), Obstructed labor 2(5.26%), prolonged labor 11 (28.94%), abdominal pain 4(10.52%), preterm labor

1(2.63%) and malpresentation 1(2.63%) [Table, II]. Two women (5.26%) had miscarriages during early 2nd trimester [Table III]. Out of 36, about 25 women (69.44%) required caesarean section and 4 of them had technically difficult procedure [Table III]. In 12 cases (48%) of fibroid uterus Cesarean section was done for non-progress of labor. Other indications for caesarean section were malpresentation 2(8%), fetal distress 4(16%) obstructed labor 2(8%), placental abruption 1(4%) and repeat section d/t previous c/section 4(16%). 6 women (15.78%) developed PPH [Table II]. One lady ended up in Cesarean Hysterectomy due to intractable bleeding during Cesarean section. 8(21.05%) women with fibroid uterus remain asymptomatic during the course of pregnancy. Fetal outcome was good with 32 (88.88 %) alive babies. 2 (5.55%) NND, 1(2.77%) IUD and 1(2.77%) NICU admission [Table IV].

Table I: Parity Wise Distribution of Women with Fibroids

Gravidity	N=38	Percentage
Primigravida	5	13.15
Multigravida	33	86.84

Table II: Obstetrical Outcome in Women with Fibroids

	No. of Patients	Percentage
Asymptomatic	8	21.05
Miscarriages	2	5.26
Pain (Abdominal Pain)	4	10.52
Malpresentation	1	2.63
Cesarean Hysterectomy	1	2.63
Placental Abruption	2	5.26
Pre-term Labor	1	2.63
Prolonged Labor	11	28.94

Table III: Mode of Delivery in Women with Fibroids

Mode of Delivery	N=36	Percentage
SVD	8	22.22
Vacuum Delivery	3	8.33
LSCS	25	69.44

Table IV: Fetal Outcome in Women with Fibroids

Fetal Outcome	N=36	Percentage
Alive	32	88.88
IUD	1	2.77
NND	2	5.55
Admission in NICU	1	2.77

Discussion

Fibroids are the most common benign tumors of child bearing age with an overall incidence of 40-60%.¹² Pregnancy with fibroid is potentially serious problem. The aim of this study was to find out the

obstetrical outcome of pregnancies complicated by leiomyomas, with special emphasis on following outcomes measures, such as preterm delivery, malpresentation, mode of delivery and postpartum haemorrhage. Furthermore. The efforts were made to estimate the magnitude of the problem to help formulate guide lines regarding management of pregnancies with fibroid in our set up.

The clinical data of obstetrical outcome of 38 pregnant women with fibroid were evaluated. About 84.21% women were diagnosed during routine antenatal visits while in 15.78% women, myoma was an incidental finding during cesarean section. These cases were also included in this study because fibroids seemed contributory to the pathology leading to cesarean section owing to their size and location. Mean maternal age in our study was 33 years which is comparable with national and international studies.^{13,14} Fibroids were more frequently found in multigravida, 33 (86.84 %) as compared to primigravida 5(13.15%) which is in consistent with the study conducted by Sheinner et a.¹⁴ Out of total about 8(21.05%) women with fibroid uterus remained asymptomatic during the course of pregnancy. Miscarriages during early 2nd trimester were found as 5.26%.

One patient presented with sudden unexplained IUD at 35 weeks of gestation. She had a large lower segment intramural fibroid and no other identifiable cause for IUD.6 (15.78%), Women developed PPH, 3 during cesarean section and 3 after vaginal birth. 4 women were managed conservatively but one woman ended up in obstetrical hysterectomy (2.63%) due to uncontrolled PPH during caesarian section. The increased incidence of PPH noted in the study is consistent with findings of study conducted by kremer MS ET al.¹⁵ 2 (5.26%) women with fibroid presented with placental abruption at term gestation. One of these women was diagnosed during antenatal visits with multiple fibroids. She presented at 38 weeks of gestation with placental abruption. A large anterior upper segment myoma was an incidental finding during cesarean section in another women who was undergoing c/section for severe APH due to placental abruption. Both of these women had no other identifiable risk factor for placental abruption other than myoma. Both of them lost their newborns during early neonatal

period. Findings of our study in case of placental abruption are conflicting with a study conducted in china which found no association between fibroid and placental abruption.¹⁶ Out of 36, 25 (69.44%) women required caesarean section and 4 of them had technically difficult procedure. The most common indication for caesarean section was non progress of labour 12(48%). The rate of Cesarean section found in our study was comparable with other studies conducted by Klatsky et al,¹¹ and Irum et al.¹⁷ The results of placental abruption and PPH found in this study are comparable with the study conducted by Saha M et al.¹⁸ Another study by Zhao R et al also confirm the results of this study by reporting increased risk of caesarean section and PPH associated with fibroid uterus.¹⁶ Contrary to findings of this study, another study conducted by Wang et al deny any association between fibroid uterus and adverse obstetrical outcome.¹⁹ Fetal outcome was good with (88.88 %) alive babies.(5.55%) NND, (2.77%) IUD and (2.77%) NICU admission. This study has its limitations. As this was a retrospective study which has its own inherent limitation of availability of information. Furthermore it was a small scale study and the findings are to be interpreted with caution in the presence of small sample size.

However, this study will provide useful data to help clinicians in counseling and management of pregnant women with fibroid uterus. Elective cesarean section at an earlier gestation in case of large myoma and lower segment myoma may reduce the risk of placental abruption and obstructed labour. A study may be conducted in future to see the effect of elective caesarean section in reducing the obstetrical complications of fibroid uterus.

Conclusion

Pregnancies with fibroids are associated with increased risk of fetomaternal complications. Pregnant women with myoma may have frequent antenatal visits in a consultant led clinic and well defined care pathways. Significant number of still birth due to placental abruption associated with large myoma may warrant elective cesarean section at relatively earlier gestational age.

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