Fetomaternal Outcome & Complications of Pregnancy with Fibroids

Dr. Vibha Sharma[1§], Dr. Kanti Yadav[2], Dr. Nita Yadav[3], Dr. Sandhya Chaudhary[4]

[1]Resident doctor, Department of Gynecology, JLN Medical College Ajmer (Rajasthan) India
[2]Senior Professor, Department of Gynecology, JLN Medical College Ajmer (Rajasthan) India
[3]Principal Specialist, Department of Gynecology, JLN Medical College Ajmer (Rajasthan) India
[4]Assistant Professor, Department of Gynecology, JLN Medical College Ajmer (Rajasthan) India

Abstract—*Fibroid (myoma) is the most common benign tumors of the uterus. Chances of complications are approximately 10-40% in the presence of fibroids. This study was aimed to assess the maternal & fetal outcome and complications in pregnancy with fibroids. It was conducted on 20 pregnant women with fibroid. Routine basic investigations were done for all subjects included in the study. Ultrasonography was done at booking visit and during subsequent visits to assess changes in size of the fibroid and associated complications. It was found that Fibroids were more frequent in multigravidae (65%) than primigravidae (35%). Majoriy (70%) were diagnosed as having fibroid during routine antenatal visits and 30% were known case of fibroid prior to conception. Twenty five women had pain, 10% had threatened preterm labor, 15% had spontaneous miscarriage, 30% had anemia and placenta previa was diagnosed in 15% women. Majority (60%) had Lower segment cesarean section (LSCS) and only 40% had vaginal delivery. Though many fibroids are asymptomatic but fibroids during pregnancy can lead to complications during the antepartum, intrapartum, and postpartum period, so they need proper follow-ups and repeated assessment. Overall prognosis depends on their location and size*

Keywords: Fibroid, Myoma, Uterus Tumour, Fetomaternal outcome

I. INTRODUCTION

Uterine leiomyomata are benign smooth muscle tumors. They are present in approximately 20-50 % of women of reproductive age.[1] Presence of myoma during pregnancy may be a potential serious problem and of frequent clinical concern since fibroids are commonly detected in women of reproduction age,[2] and many times they have been implicated as a cause of bad pregnancy outcome. The incidence of fibroids in pregnancy ranges from 0.1-10.7% of all pregnancies.[2]

Effect of pregnancy on myoma may be stimulatory and it can lead to unpredictable and impressive growth during pregnancy. These tumors respond differently in different women. Fibroids may grow, regress or remain unchanged in size during pregnancy. Though in some cases it does not affect the outcome of pregnancy but they are associated with complications like preterm labor, IUGR, abortion, PROM, uterine dysfunction, placental abruption, and obstructed labor, increased risk of cesarean delivery, breech presentation, malposition.[3]

Fibroids are associated with menstrual disorders and pelvic pain, infertility and pregnancy outcome. Incidence of fibroids increases with maternal age. Women who are older than 35 years of age and in nulliparas are especially at risk.[4] Fibroid <5 cm in diameter tend to remain stable or decrease in size and, larger fibroids (>5 cm) tend to grow during the pregnancy.[5] The risk of adverse events in pregnancy increases with the size of the fibroid. Different complications with variable rates of incidence have been reported in pregnancy with fibroids.[6] Above mentioned complications are more commonly seen with large submucosal and retroplacental fibroids.[7]

This present study was conducted to find out fetomaternal complications if any of fibroid with pregnancy at a tertiary level hospital of Rajasthan.

II. METHODOLOGY

This present study is a hospital based descriptive study. It was carried out over a period of 2-years (from 15.08.2014 to 14.08.2016) in 20 women admitted with the diagnosis of pregnancy with fibroid in a tertiary care hospital i.e. Rajkiya Mahila Chikitsalay attached to JLN Medical College, Ajmer, Rajasthan, India. Ultrasonography was done at the time of booking visit. Subjects with fibroid of ≥5 cm were included in this study. These women were thoroughly interrogated & investigated and followed till delivery. Observations were recorded and analysed.

III. RESULTS

Twenty women who were having pregnancy with uterine leiomyomata were included in this study. Women with fibroids of ≥5 cm were included in the study. A major proportion was in the younger age group of 25-35 years. The mean age in our study population is 33 years. Fibroids were more frequent in multigravidae 13 (65%) than primigravidae i.e. 7 (35%). (Table 1)

Table 1
Distribution of Study population as per Age and Gravida of female

Parameter		N = 20	Percentage
Age in years	18-25	2	10
	26-30	4	20
	31-35	8	40
	>35	6	30
Gravida	Primigravidae	7	35
	Multigravidae	13	65

Out of 20 women, 6 (30%) were known case of fibroid before being pregnant, remaining 14 (70%) were diagnosed as having fibroid during routine antenatal visits. Out of these 70% who diagnosed during routine antenatal visits, 30% diagnosed <12 weeks of gastation.(Table 2)

Table 2
Distribution of Study population as per timing of diagnosis of Fibroid

S. No.	Time of diagnosis of Fibroid	N = 20	Percentage
1	**Pre-pregnancy diagnosis**	6	30
2	**<12 weeks of Gestation**	6	30
3	**13-20 weeks of Gestation**	4	20
4	**21-28 weeks of Gestation**	3	15
5	**29-36 weeks of Gestation**	1	5

Five women (25%) had pain, 2 (10%) had threatened preterm labor, 3 (15%) had spontaneous miscarriage, and 6 (30%) had anemia. (Table 3)

Pain was the mainly reported by women with fibroids ≥5 cm) during 2nd and 3rd trimesters of pregnancy. Though 10% patients had a history of threatened preterm labor during pregnancy but they patients continued their pregnancy until term.

Table 3
Distribution of Study population as per complications of Fibroid in Pregnancy

S. No.	Complications	N = 20	Percentage
1	**Asymptomatic**	3	15
2	**Spontaneous abortion**	3	15
3	**Pain abdomen**	5	25
4	**Placenta previa**	1	5
5	**Anemia**	6	30
6	**Threatened preterm labor**	2	10

Seventeen women (85%) crossed 37 completed weeks of gestation. Out of these 17, Lower segment cesarean section (LSCS) done in 11 women (64.71%) whereas 6 (35.29%) women had vaginal delivery. (Figure 1)

Indication for LSCS was breech presentation in 3 (27.8%) women, 3 women were with post-cesarean pregnancy (27.8%), transverse lie in 2 (18.18%), placenta previa in 1 (9.09%), premature rupture of membranes (PROM) with poor bishops score in 2 (18.18%). (Figure 2)

Figure 1

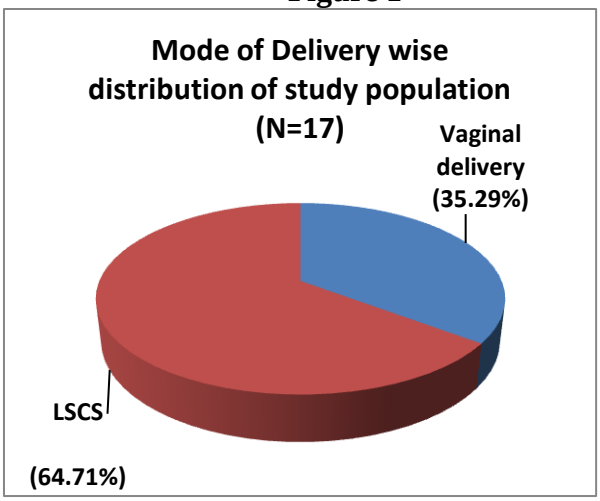
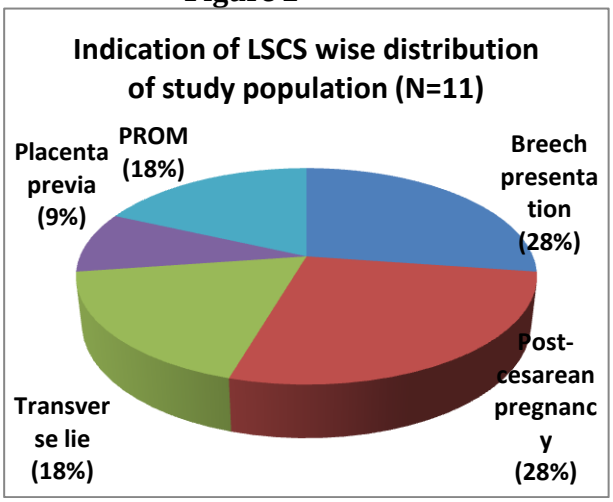


Figure 2



Two (10%) woman with very large fibroid and uncontrolled PPH ended up in cesarean hysterectomy in this study. All 15 babies were with weight above 2.5 kg with good Apgar score. There was no perinatal and maternal mortality in this study.

IV. DISCUSSION

This study was conducted to assess the maternal & fetal outcome and complications in pregnancies with leiomyomas. Mean maternal age in this study was found to be 33 years, which is similar to other studies, showing occurrence of leiomyomas in second and third decades of life.[8] It was found that fibroids were less frequent in the primigravidae compared to multigravidae (63% multigravida and 37% primigravida). This is supported by other study also.[9]

Obstetric complications in this study was spontaneous abortion in 15%. High incidence of abortions in patients with fibroids is also supported by earlier studies.[9.10] The proposed mechanism is compressed endometrial vascular supply, affects the fetus adversely resulting in abortion. Pain abdomen was present in 5 (25%) patients, which is in line with previous studies.[10] Pain was the mainly reported by women

with fibroids ≥5 cm) during 2nd and 3rd trimesters of pregnancy. Fibroids may grow quickly and cause intense pain during pregnancy.[11] Pain may be due to red degeneration, which is thought to be result of effect of progesterone on fibroids that occurs more commonly in pregnancy.[12] Though 10% patients had a history of threatened preterm labor during pregnancy but they patients continued their pregnancy until term. PROM was seen in 2 (10%) is equal to study by Sarwar *et al*. Six (30%) patients had anemia.

Regarding the mode of delivery in this study, 35.29% had spontaneous onset of labor and vaginal delivery and 64.21% had LSCS. Cesarean proportion in this study is similar to study conducted by Klatsky et al.[10]

Indications for LSCS in this study were breech presentation in 15% women, women were with post-cesarean pregnancy in 15%, transverse lie in 10%, placenta previa in 5% and premature rupture of membranes (PROM) with poor bishops score in 10%.

V. CONCLUSION

Pregnancies with fibroids are associated with complications during antepartum, intrapartum, and postpartum period. They need multiple follow-ups and assessment. Though many of the fibroids are asymptomatic, but may adversely affect the course of pregnancy and labor depending on their location and size.

CONFLICT OF INTEREST

None declared till now.

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