

# Obstetric Outcomes in Females Presented with Uterine Fibroids at Gulab Devi Hospital Lahore

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## ABSTRACT

**Aim:** To determine the pregnancy outcomes in females presented with uterine fibroids

**Methodology:** This descriptive cross sectional study was conducted at obstetric department of Gulab Devi Teaching Hospital. Using purposive sampling 50 patients were included in the study based on the history, clinical examination and ultrasound findings. All pregnant females with uterine fibroid of 2cm or more were noted. Each participant was advised to come for regular antenatal checkups. On each visit complete evaluation was done. The progress of pregnancy was monitored. Any complication such as miscarriage, abdominal pain, preterm labor, preterm delivery, placental abruption, abnormal fetal presentation was noted. Mode of delivery was recorded in females who sustained their pregnancies. Any postpartum hemorrhage was also noted down on a structured proforma. Data were assessed and analyzed by SPSS version 20.0.

**Results:** The mean age of study participants was 32.40± 2.15 years. 12 were primi-gravida, 27 were second gravida and 11 were ≥ 3 gravida.. 14 (28%) of 50 females had miscarriage and pregnancy was progressed in 36 (72%) females. Abdominal pain (38.8%) was most commonly reported obstetric outcome in females who sustained their pregnancy followed by preterm labour (33.3%), preterm delivery (22.2%), abnormal fetal presentation (13.8%) and placental abruption (8.3%). Postpartum hemorrhage was observed in 05 (13.8%) females. The mode of delivery by cesarean section was found in 24 (66.66%) of participants.

**Conclusion:** Our study and evidence from literature revealed that pregnant females with fibroid uterus experience more complications. Abdominal pain is the most common antenatal complication. The fibroid cause poor progress in labor, prevent descent of fetal head or cervical dystocia. These factors can prevent normal delivery and lead to increase in cesarean section rate

**Keywords:** Leiomyomas, Miscarriage, Maternal health, Public Health

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## INTRODUCTION

Fibroids or leiomyomas are benign tumors of the uterus and are found in 20-60% of women of reproductive age<sup>1</sup>. The true incidence in pregnancy is unknown but reported rates vary from 0.1-12.5%<sup>2,3</sup>. The diagnosis of fibroid is made on the basis of clinical presentation or/and ultrasonography<sup>4</sup>. Fibroids can affect the pregnancy in different ways<sup>5</sup>. Complications like miscarriage, threatened miscarriage, preterm labor, preterm birth, placental abruption and abdominal pain secondary to degeneration or decreased blood supply of uterus have been reported in literature<sup>6,7</sup>. Fibroids can distort uterine architecture and interfere with myometrial contractions leading to uterine atony and postpartum hemorrhage<sup>8</sup>. Similarly increased chances of having mal-presentation and cesarean delivery have also been reported<sup>9,8</sup>. Pregnancy has an unpredictable effect on the fibroids growth. In few cases they significantly increase in size during early pregnancy and then decreases in size in third trimester<sup>10</sup>. Most of the fibroids are asymptomatic in pregnancy and labor but can be associated with complications and once they are diagnosed with pregnancy the female needs specialized management to obtain maternal and fetal well being. Therefore this study is an attempt to identify adverse pregnancy outcomes of uterine fibroids so to anticipate and manage such complications timely in an appropriate manner.

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## PATIENTS AND METHODS

This was a descriptive case series conducted at obstetric department of Gulab Devi Teaching Hospital. 50 patients were included in the study using purposive sampling. Selection was based on the history, clinical examination and ultrasound findings. Females with twin pregnancy, previous uterine surgery of any type such as cesarean section or myomectomy, placenta previa, submucosal fibroid were excluded.

**Data Collection:** After taking an informed consent from the participants, a detailed obstetric history was taken. General physical and systemic examination was performed. On abdominal examination fundal height, lie and presentation of the fetus noted and fetal heart rate checked. Detailed obstetric ultrasound was performed which describes fetal biometry, gestational age, placental localization and amniotic fluid. Size and location of the uterine fibroid was noted. All pregnant females with uterine fibroid of 2cm or more were noted. Each participant was advised to come for regular antenatal checkups. On each visit complete evaluation was done. Any complication noted and treated. The progress of pregnancy was monitored. Any complication such as miscarriage, abdominal pain, preterm labor, preterm delivery, placental abruption, abnormal fetal presentation was noted. Mode of delivery i.e normal or by cesarean section was recorded. Any postpartum hemorrhage was also noted down on a structured proforma.

**Data Analysis:** Data were assessed and analyzed by SPSS version 20.0. Categorical data were presented in the

form of % ages & graphs while mean±S.D was used for quantitative analyses.

**RESULTS**

The mean age of study participants was 32.40± 2.15 years. 12 were primi-gravida, 27 were second gravida and 11 were ≥3 gravida. Fig. 1 shows frequency of miscarriage as pregnancy outcome. 14(28%) of 50 females had miscarriage (who ended pregnancy ≤24 weeks) and pregnancy was progressed in 36(72%) females.

Fig. 1: Frequency of Miscarriage as Pregnancy Outcome

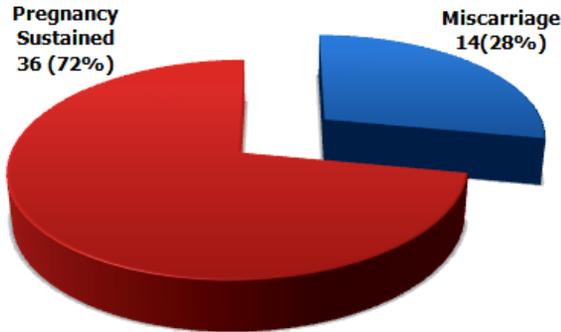


Table1: Frequency of Various Obstetrics Complications

	Frequency
Abdominal pain	14 (38.8%)
Pre-term labour	12 (33.3%)
Pre-term delivery	08 (22.2%)
Abnormal fetal presentation	05 (13.8%)
Postpartum Hemorrhage	05 (13.8%)
Placental abruption	03 (8.3%)

Table 1 shows frequency of various obstetric outcomes of females in which pregnancy was sustained.

Out of 36 females who sustained their pregnancies, 14(38.88%) females experienced abdominal pain during pregnancy. Preterm labor was observed in 12(33.3%) and preterm delivery occurred in 8(22.2%) females. In most of them fetal presentation was normal but 5(13.88%) females were reported to have abnormal presentation of the fetus. Placental abruption occurred in 3(8.33%) females. The mode of delivery by cesarean section was found in 24(66.66%) of participants. Complication of postpartum hemorrhage was reported in 05 (13.88%) of participants.

**DISCUSSION**

This study reveals the outcome of pregnancy in females having fibroid uterus. 50 patients were registered and their antenatal, intrapartum and postnatal periods were observed and treated. Out of 50 study participants, 14(28%) participants underwent miscarriage. Different studies show the frequency of miscarriage in 11.7%-14% females having fibroids<sup>6,11</sup>. Another study found miscarriage in 36.4% females<sup>12</sup>. A study found that frequency of miscarriage and pregnancy loss was significantly higher in patients with fibroid<sup>13</sup>.

The uterine degeneration or decreased blood supply, secondary to fibroids, can cause abdominal pain in pregnant female<sup>7</sup>. Females experience abdominal pain more frequently in perinatal period<sup>14</sup>. In this study out of 36 females who sustained their pregnancies, 14(38.8%) females experienced abdominal pain during pregnancy. Due to this pain they were admitted in the hospital. A study shows frequency of abdominal pain of 45.5%<sup>12</sup>. But in one study it was found that incidence of abdominal pain in females with fibroid is not significantly increased as compared to general population.<sup>15</sup> Another study shows that only 4% of females suffered from abdominal pain due to fibroids<sup>16</sup>.

In our study we found the prevalence of preterm labor as 33.3% i.e. 12 females experienced preterm labor. When compared to other studies it was found that preterm labor occurred in 11.7%, 21% and 16.1% respectively<sup>1,11,16</sup>. According to Egbe TO et al pregnancy keeps a female at a risk of developing complications in antenatal period such as preterm labor and preterm birth.<sup>12</sup> On contrary another study revealed that uterine fibroid in pregnancy does not increase the risk of preterm labor in females<sup>17</sup>.

In our study 8(22.22%) females had preterm delivery. In a study increased risk of preterm delivery was reported<sup>18</sup>. our findings were consistent with the previous literature in terms of increased risk of preterm delivery in females with uterine fibroids<sup>13,19,11,20</sup>.

In our study it was found that 05(13.8%) females had fetal mal-presentation. In most cases it was breech presentation. One study showed breech presentation in 13.33%<sup>8</sup>. According to another study malpresentation was significantly higher.<sup>13</sup> But on contrary Vergani P et al states that incidence of malpresentation is not significantly higher<sup>15</sup>.

Decreased blood flow to the fibroid and adjacent tissue which results in partial ischemia and decidual necrosis in placental tissue overlying the fibroid may cause placental abruption.<sup>7</sup> This is an obstetric emergency and can lead to fetal and maternal complications. 3(8.33%) females in present study had complication of placental abruption. One study revealed that incidence of placental abruption increases secondary to fibroids.<sup>6</sup> But according to other studies females with fibroid are not at increased risk of placental abruption<sup>11,20,21</sup>.

Mode of delivery by cesarean section was found in 24 (66.66%) of females in present study. These findings are in consistent with the findings of Saleh HS et al<sup>1</sup> and Noor S et al<sup>8</sup> in terms of delivery by cesarean section as 85% and 70% respectively. The literature also revealed increased cesarean section rate in females with fibroid<sup>14,15,21,22,23</sup>.

The females who underwent postpartum hemorrhage in our study were 05 (13.8%). In a study 4% of the females developed postpartum hemorrhage<sup>1</sup>. Postpartum hemorrhage due to uterine atony was frequent in females with uterine fibroid<sup>14,5,8</sup>. But one study states that incidence of postpartum hemorrhage was not significantly increased in females with fibroid<sup>15</sup>. The pregnancy of females with fibroid needs to be managed in fully equipped centers with all facilities for mother and neonate. All emergency services like Operation Theater, blood bank and neonatal nursery is required for management of these patients.

## CONCLUSION

Our study and evidence from literature revealed that pregnant females with fibroid uterus experience more complications. Abdominal pain is the most common antenatal complication. The fibroid cause poor progress in labor, prevent descent of fetal head or cervical dystocia. These factors can prevent normal delivery. Fibroids may change the morphology of uterine muscles and prevent their contractility.

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