

## Research Article

# A case series study on pregnancy outcome in cases of uterine fibroids

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## **ABSTRACT**

**Objective:** To assess the pregnancy outcome in cases of uterine fibroids presenting at THQ Hospital Jahanian.

**Material and methods:** This case series study was conducted at Department of Obstetrics and Gynaecology, THQ Hospital Jahanian from November 2017 to May 2018 over the period of 6 months. Total 40 pregnant women with uterine fibroids were selected and their pregnancy outcome was studied.

**Results:** Fourty patients were included in this study who had pregnancy with fibroid. Nine (22.5%) patients had no complications. Normal deliveries were achieved in 19 patients. Ten out of forty patients had caesarean section and 11 had miscarriages, while 10 (25.5%) had postpartum haemorrhage. Thirteen patients had preterm delivery and 4 patients had ante-partum haemorrhage while three (7.5%) patients had premature rupture of membranes. Seventeen (42.5%) babies were healthy. Seven (17.5%) babies delivered with morbidity. There were 5 (12.5%) intrauterine deaths and one early neonatal death. **Conclusion:** Miscarriage, preterm delivery and post partum haemorrhage are common in patients having pregnancies with fibroid.

**Keywords:** Leiomyoma, myoma, fibroid, maternal complication, foetal outcome

## **INTRODUCTION**

Uterine fibroids are common benign tumors of the uterus affecting approximately 20% of women of reproductive age. They are therefore common in pregnancy. The true incidence of fibroids during pregnancy is unknown, but reported rates vary.<sup>1</sup> Different complications occurring in pregnancy with fibroids include preterm labour, dysfunctional labour, ante partum haemorrhage and post partum haemorrhage. Although these complications are common, the neonatal outcome in viable pregnancies is fairly good in women with uterine fibroids. Because of increased risk of complications, all the patients with fibroids having pregnancy should be considered as high-risk

cases. The effect of uterine fibroids on pregnancy outcome is difficult to determine.<sup>2</sup> This is due to lack of adequate knowledge about prevalence of fibroid in pregnancy. It is a myth that fibroids increase during pregnancy. Fibroids are more common in primiparous women than in multiparous. Although most pregnancies are unaffected by the presence of fibroids, large submucosal and retroplacental fibroids seem to impart a greater risk for complications, including pain (degeneration), vaginal bleeding, placental abruption, intrauterine growth retardation (IUGR), and preterm labour.<sup>3</sup> Submucosal fibroid is one of the most recognized causes of infertility

and abortion. Uterine peristaltic movements are partly interrupted by submucosal fibroids. These findings are considered to represent dysfunctional contractility, and may be related with pregnancy loss.<sup>4</sup> Uterine fibroids 5 Cm or larger are independently associated with caesarean delivery and the risk increases with the size of the fibroid.<sup>5</sup> The objective of this study was to evaluate the maternal and foetal outcome in women having pregnancy with fibroids in uterus and the frequency of complications associated with fibroids during the course of pregnancy.

### MATERIAL AND METHODS

This case series study was conducted at Department of Obstetrics and Gynaecology, THQ Hospital Jahanian from November 2017 to May 2018 over the period of 6 months. Total 40 pregnant women with uterine fibroids were selected. Fibroid was diagnosed by clinical grounds and ultrasonography. Pregnancies in which there was a planned caesarean section for reasons other than the fibroid in uterus were excluded. Patients with ectopic pregnancy and diseases like cardiac diseases, uncontrolled diabetes, hypertension etc were excluded from the study. All patients were admitted through casualty, OPD or private clinics meeting the inclusion criteria were enrolled in the study. Approval from ethical committee was taken and informed written consent was taken from all patients included in the study. Demographic data and complete history were recorded on pre-designed performa. Clinical examination and baseline investigations were performed and

**Table No.1:** Frequencies of gestation period (n=40)

Gestation Period	Cases (%)	Mean±SD
≤24 weeks	10(25)	27.22±10.53
25–30 weeks	9(22.5)	
31–36 weeks	5(12.5)	
≥37 weeks	16(40)	

**Table No.2:** Frequency of Abortions in Obstetrical History (n=40)

No of abortions	Cases (%)	Mean±SD
0	26(65)	0.72±1.21
1-2	11(27.5)	
3-5	3(7.5)	

ultrasonography was done for the confirmation of fibroid, its size and position were measured and recorded in the pre-designed performa. Patients presenting with complaints and the maternal and foetal outcome and the complications encountered were recorded with reference to the gestational age.

The data were analysed using SPSS-16. Mean±SD were calculated for age, gravidity, parity, and period of gestation. Frequencies and percentages were calculated for booking status, mode of delivery, maternal outcome, maternal complications, and foetal outcome.

### RESULTS

Total 40 pregnant women with uterine fibroids were selected. The age of the patients ranged from 20 to 45 years with mean age of 30.15±7.04 years. In which 9(22.5%) patients were booked while 31(77.5%) were not booked.

Out of 40 patients primigravida were 9(22.5%), multigravida 17(42.5%), and grand multigravida 14 (45%). Frequencies with Mean±SD of different periods of gestation in which patients presented is shown in Table No.1.

Frequency with Mean±SD of abortions in obstetrical history is shown in Table No.2.

Of 40 patients 19 were delivered vaginally, 10 by caesarean section and 11 had miscarriage. Sixteen (40%) patients delivered at term, 13 (32.5%) delivered preterm and 11 (27.5%) had miscarriage. Frequencies of maternal outcome is shown in Table No.3.

**Table No.3**” Frequency of maternal outcome (n=40)

Maternal Outcome	Cases	Percentage
Miscarriages	11	27.5%
Vaginal delivery at term	8	20%
Vaginal delivery at preterm	11	27.5%
Caesarean section at term	8	20%
Caesarean section at preterm	2	5%

**Table No.4:** Frequency of Maternal Complications (n=40)

Maternal Complications	Cases	Percentage
Miscarriages	11	27.5%
Pain Abdomen	2	5%
Premature rupture of membranes	3	7.5%
Ante-partum haemorrhage	4	10%
Postpartum Haemorrhage	10	25%
Nil	10	25%

**Table No.5:** Frequency of Foetal Outcome (n=40)

Foetal Outcome	Cases	Percentage
Normal Healthy Baby	17	42.5%
Early foetal loss	10	25%
Intrauterine death	5	12.5%
Early neonatal death	1	2.5%
Baby with morbidity	7	17.5%
Total	40	100

## DISCUSSION

This study was conducted to evaluate the outcome of pregnancies associated with fibroids. As the presence of fibroids increase the risks of adverse pregnancy and foetal outcome, thus emphasizing the importance of appropriate management of this high risk pregnancy.<sup>6</sup>

Our 40 patients had fibroid, giving an incidence of 1%. The reported incidence of pregnancies complicated by fibroid is 0.1–4%, which compares with our study.<sup>7</sup> Mean maternal age came out to be 30 years, which is comparable to other studies, showing occurrence of fibroid in 3rd and 4th decade of life.<sup>8</sup> The association of fibroids with nulliparity has been reported but may occur in multiparous females with same frequency.<sup>9,10</sup> During pregnancy, uterine fibroid are usually asymptomatic. They may be complicated by red degeneration, an increased frequency of spontaneous abortion, preterm labour, premature rupture of membranes, ante-partum haemorrhage,

malpresentation, obstructed labour, caesarean section and postpartum haemorrhage.<sup>11–13</sup>

Thirty pregnancies in our study had complications, while 10(25%) remained asymptomatic. Other studies have reported up to 70% pregnancies with fibroids have complications.<sup>14</sup>

As for as obstetrical complications are concerned, 11 out of 40 patients (27.5%) had miscarriage. This study confirmed the findings of prior study showing that spontaneous pregnancy loss rates were higher in women with fibroids.<sup>15</sup> This also well correlated with the national study which reflect an incidence of 22% for miscarriages due to fibroid.<sup>8</sup> The compromising endometrial vascular supply affects the foetus adversely resulting in abortion.<sup>16</sup>

Two (5%) patient had acute abdomen, managed conservatively. The cause of pain was most probably degeneration. Fibroid can undergo degenerative changes during pregnancy due to the effect of progesterone which induces degenerative changes.<sup>15</sup>

In our study it was found that there is an increased risk of premature rupture of membranes and preterm delivery. Myoma may distort the shape of uterine cavity which may account for higher rates of preterm birth and malpresentations.<sup>15</sup> As pregnancy advances myometrium having fibroids are overstretched and this mechanism can initiate labour and thus result in increase rate of preterm births.<sup>16</sup>

Pregnant women with fibroid are at increased risk of placenta previa and malpresentation.<sup>3</sup>

Regarding mode of delivery, 19 patients achieved vaginal delivery while 10 patients (25%) underwent caesarean section, (11 patients already had miscarriage). An increased risk of caesarean section in our study compares well with previously conducted studies showing caesarean section rate of 39% in patients with fibroid compared to 17% for general population.<sup>17</sup> Indications for caesarean section were primary dysfunctional labour, failure to progress, malpresentation and antepartum haemorrhage. In our study, 10 patients (25%) had post partum haemorrhage. The risk of post partum haemorrhage in pregnancies complicated by fibroids has been reported as 14% in a previous study.<sup>14</sup>

Complications like intrauterine growth retardation, prolapsed of pedunculated fibroid through cervix, obstructed labour, adherent placenta, uterine inversion reported in previous studies were not observed in our study.<sup>5,18,19</sup>

As far as neonatal outcome is concerned, 17(42.5%) patients delivered healthy babies. There were 5 patients (12.5%) who had intrauterine death while one patient (2.5%) had an early neonatal death. All of these babies were preterm, with period of gestation less than 28 weeks.

## CONCLUSION

Miscarriage, Premature rupture of membranes, preterm delivery and post partum haemorrhage are the main complications in patients having pregnancy with fibroid.

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