

## ORIGINAL RESEARCH

# EVALUATION OF OUTCOME IN PREGNANCY COMPLICATED BY FIBROID UTERUS: AN OBSERVATIONAL STUDY

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## ABSTRACT

**Background:** The present study was conducted with the aim of assessing the outcome of pregnancy complicated by fibroid uterus.

**Materials & methods:** 50 subjects with presence of fibroid uterus were enrolled. Complete demographic details of all the patients were obtained. Assessment of the increase in the size of the fibroid and degeneration and other obstetric complications was done. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software.

**Results:** Pain abdomen was found to be present in 18 percent of the patients, while spontaneous miscarriage occurred in 6 percent of the patients. Postpartum occurred in 8 percent of the patients while threatened preterm labor occurred in 6 percent of the patients.

**Conclusion:** Fibroid uterus increases the risk of associated complications.

**Key words:** Pregnancy, Fibroid uterus

## INTRODUCTION

Uterine fibroids (leiomyomas) are benign monoclonal tumours of smooth muscle, taking origin in the myometrium. They are the commonest benign tumours of the uterus, and are typically round well-circumscribed masses. They are usually multiple, and can range in size from a few millimetres to massive growths of 20cm diameter and more. The aetiology is largely unknown, but they are oestrogen- and progesterone-dependent tumours, very rare before menarche, common in reproductive life, and frequently regress in size after menopause. Uterine fibroids are a major cause of morbidity in women of a reproductive age

(and sometimes even after menopause). There are several factors that are attributed to underlie the development and incidence of these common tumors, but this further corroborates their relatively unknown etiology.<sup>1-3</sup>

It is not clear whether diet habits, such as consuming red meat, ham, green vegetables, or fiber, could influence the growth of myomas. It is also difficult to analyze the specific effects of physical exercise on the development of uterine myomas, as only a few observational studies have addressed this aspect so far. Several studies have revealed that smoking may reduce the incidence of myomas; nicotine inhibits aromatase and reduces the conversion of androgens to estrone. Smoking also exerts a powerful inducing effect on the 2-hydroxylation pathway of estradiol metabolism, which is likely to lead to decreased bioavailability at estrogen target tissues.<sup>4-7</sup> Hence; the present study was conducted with the aim of assessing the outcome of pregnancy complicated by fibroid uterus.

## MATERIALS & METHODS

The present study was conducted with the objective of assessment of outcome of pregnancy complicated by fibroid uterus. A total of 50 patients were enrolled in the present study. Only those patients were enrolled in which fibroid uterus was found. Complete demographic details of all the patients were obtained. Ultrasonogram done at booking visit and patients with fibroid of 5 cm and above were included in the study. During subsequent visits, assessment of the increase in the size of the fibroid and degeneration and other obstetric complications was done. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software. Univariate regression curve was used for assessment of level of significance.

## RESULTS

Mean age of the patients was found to be 28.3 years. Majority proportion of subjects belonged to the age group of 26 to 30 years. More than 70 percent of the subjects were of multigravida while the remaining 25.64 percent of the patients were of primigravida. In the present study, Cesarean section was found in 76 percent of the patients while spontaneous vaginal delivery occurred in 20 percent of the patients. Pain abdomen was found to be present in 18 percent of the patients, while spontaneous miscarriage occurred in 6 percent of the patients. Postpartum occurred in 8 percent of the patients while threatened preterm labor occurred in 6 percent of the patients.

**Table 1: Mode of delivery**

Mode of delivery	Number of patients	Percentage
Spontaneous vaginal	10	20
Cesarean section	38	76
Vacuum application	2	4
Total	50	100

**Table 2: Complications during pregnancy**

Complications	Number of patients	Percentage
Asymptomatic	31	62
Spontaneous miscarriage	3	6
Postpartum	4	8
Threatened preterm labor	3	6
Pain abdomen	9	18

## DISCUSSION

Uterine fibroids are common benign neoplasms, with a higher prevalence in older women and in those of African descent. Many are discovered incidentally on clinical examination or imaging in asymptomatic women. Fibroids can cause abnormal uterine bleeding, pelvic pressure, bowel dysfunction, urinary frequency and urgency, urinary retention, low back pain, constipation, and dyspareunia. Ultrasonography is the preferred initial imaging modality. Expectant management is recommended for asymptomatic patients because most fibroids decrease in size during menopause. Management should be tailored to the size and location of fibroids; the patient's age, symptoms, desire to maintain fertility, and access to treatment; and the experience of the physician. Medical therapy to reduce heavy menstrual bleeding includes hormonal contraceptives, tranexamic acid, and nonsteroidal anti-inflammatory drugs. Gonadotropin-releasing hormone agonists or selective progesterone receptor modulators are an option for patients who need symptom relief preoperatively or who are approaching menopause. Surgical treatment includes hysterectomy, myomectomy, uterine artery embolization, and magnetic resonance-guided focused ultrasound surgery.<sup>6- 9</sup> Hence; the present study was conducted with the aim of assessing the outcome of pregnancy complicated by fibroid uterus.

Mean age of the patients was found to be 28.3 years. Majority proportion of subjects belonged to the age group of 26 to 30 years. More than 70 percent of the subjects were of multigravida while the remaining 25.64 percent of the patients were of primigravida. In the present study, Cesarean section was found in 76 percent of the patients while spontaneous vaginal delivery occurred in 20 percent of the patients. Redecha et al have reported 6 women who had had successful spontaneous conception (23.08 %) and 1 patient was pregnant twice after uterine embolization: during gestation and delivery, there was no serious complication. There was one missed abortion and one placental retention. McLucas B et al reported a retrospective chart review of patients under the age of 40 who indicated a desire for fertility prior to embolization. Twenty-two of these women have reported 28 pregnancies. Of these pregnancies, 20 live births, three miscarriages, and three instances of premature labor were reported. Seventeen of these pregnancies were delivered by caesarean section and six pregnancies were vaginal deliveries. In 2012 Metwally M et al have reviewed the published randomized trial on the effect of surgical treatment of fibroids for subfertility. In that review they identified one study which examined the effect of myomectomy on reproductive outcomes and showed no evidence for a significant effect on the miscarriage rate (intramural fibroids OR 0.89 (95% CI 0.14 to 5.48), submucous fibroids OR 0.63 (95% CI 0.09 to 4.40),

combined intramural and subserous fibroids OR 0.25 (95% CI 0.01 to 4.73) and combined intramural submucous fibroids OR 0.50 (95% CI 0.03 to 7.99).<sup>10-12</sup>

Pain abdomen was found to be present in 18 percent of the patients, while spontaneous miscarriage occurred in 6 percent of the patients. Postpartum occurred in 8 percent of the patients while threatened preterm labor occurred in 6 percent of the patients. Evidence indicates that uterine fibroids, as an independent factor, are associated with infertility, causing less than 3% of cases of infertility and 7% of recurrent miscarriage. In addition, the rate of miscarriage of women with uterine fibroids is 20–30%, two to three times higher than that of women without such fibroids. The common factors leading to infertility or miscarriage are: fibroid-induced anatomical changes in the uterus, high estrogen, uterine contraction and dysmotility, and the decline of receptivity of the endometrium and ovulation dysfunction. The fibroids also increase the risk of pregnancy complication and are a cause of premature delivery, abnormal fetal position, premature rupture of membranes, placenta praevia, placental abruption, postpartum haemorrhage, and an increased rate of puerperal infection.<sup>13-15</sup>

## CONCLUSION

Under the light of above obtained results, the authors conclude that Fibroid uterus increases the risk of associated complications.

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