

ORIGINAL ARTICLE

Analysis of outcome of Pregnancy among patients with uterine fibroids

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ABSTRACT:

Background: The present study was conducted for assessing the pregnancy outcome among pregnant subjects with uterine fibroids. **Materials & methods:** 100 subjects were enrolled. Only those subjects were enrolled in the present study that had fibroids of more than 2 cm in diameter. They were followed during antenatal period clinically and scanned by ultrasonogram which was done at booking visit and during subsequent visits to assess the change in the size of the fibroid and other obstetric complications. Outcome was recorded. Analysis of all the results done. **Results:** In 15 percent of the subjects, preterm labor was seen. Antepartum bleeding, Postpartum haemorrhage and abdominal pain needing admission was seen in 5 percent, 6 percent and 6 percent of the patients. In 2 percent of the patients, spontaneous pregnancy was seen, while premature delivery was seen in 23 percent of the patients. Vaginal delivery and C section were seen in 15 percent and 85 percent of the patients. Congenital anomaly was seen in 3 percent of the patients while NICU admission was seen in 5 patients. **Conclusion:** Uterine fibroids during pregnancy are often associated with an increased risk of difficulties during the antepartum, intrapartum, and postpartum phases of the healing process.

Key words: Pregnant, Uterine, Fibroids

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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.^{1,2}

By age 50, it is estimated that 70% of women will have one or more uterine fibroids, with around 30% of patients symptomatic and requesting treatment. Women of all races are affected, but fibroids are commoner, and develop at an earlier age, in women of African origin.² By age 35 years, 60% of African-American women will have fibroids, compared to 40% in Caucasian women of the same age. Other risk factors include age (increasing incidence with age up to the menopause, then usually decreasing in size), nulliparity, genetic factors, early menarche, caffeine, alcohol, obesity and hypertension.³

A study carried out in the USA with randomly selected women between the ages of 35 and 49 years (who were screened by self-report, medical record, and sonography) showed that the incidence of uterine fibroids by age 35 was 60% among African-American women, increasing to >80% by age 50, whereas Caucasian women showed an incidence of 40% by

age 35, and almost 70% by age 50. The cumulative incidence (based both on ultrasonographic detection of fibroids in women with an intact uterus and evidence of prior fibroids among women who have had hysterectomies) increases with age, but the rate of increase slows at older ages. This suggests that the older premenopausal uterus is less susceptible to fibroid development.⁴⁻⁶ Hence, the present study was conducted for assessing the pregnancy outcome among pregnant subjects with uterine fibroids.

MATERIALS & METHODS

The present study was conducted for assessing the pregnancy outcome among pregnant subjects with uterine fibroids. There were one hundred participants. All of the patients underwent standard investigative procedures. In the current investigation, only patients with fibroids larger than 2 cm in diameter were included. They were followed during antenatal period clinically and scanned by ultrasonogram which was done at booking visit and during subsequent visits to assess the change in the size of the fibroid and other obstetric complications. The result was noted. All the results were recorded and analysed by SPSS software.

RESULTS

Among the 100 subjects enrolled, mean age of the subjects was 34.3 years. 66 subjects were of multigravida. Mean duration of menstrual cycle per day was 28.5. Threatened miscarriage was present in 20 percent of the subjects. In 15 percent of the

subjects, preterm labor was seen. Antepartum bleeding, Postpartum haemorrhage and abdominal pain needing admission was seen in 5 percent, 6 percent and 6 percent of the patients. In 2 percent of the patients, spontaneous pregnancy was seen, while

premature delivery was seen in 23 percent of the patients. Vaginal delivery and C section were seen in 15 percent and 85 percent of the patients. Congenital anomaly was seen in 3 percent of the patients while NICU admission was seen in 5 patients.

Table 1: Maternal outcome

Maternal outcome	Number	Percentage
Threatened miscarriage (vaginal bleeding occurring at <28 weeks of pregnancy)	20	20
Preterm labor	15	15
Antepartum bleeding	5	5
Abdominal pain needing admission	6	6
Postpartum haemorrhage	6	6
Blood transfusion	2	2

Table 2: Pregnancy outcome

Pregnancy outcome	Number	Percentage
Spontaneous	2	2
Premature delivery	23	23
Vaginal delivery	15	15
Caesarean section	85	85

Table 3: Neonatal outcome

Neonatal outcome	Number	Percentage
Congenital anomaly	3	3
NICU admission	5	5
Fetal weight (Kg)	2981.6	

DISCUSSION

Uterine fibroids (also known as leiomyomas or myomas) are the most common form of benign uterine tumors. They are monoclonal tumors of uterine smooth muscle, thus originating from the myometrium. They are composed of large amounts of extracellular matrix (ECM) containing collagen, fibronectin and proteoglycans. Leiomyomas occur in 50–60% of women, rising to 70% by the age of 50, and, in 30% of cases, cause morbidity due to abnormal uterine bleeding (heavy menstrual bleeding inducing anemia) and pelvic pressure (urinary symptoms, constipation and tenesmus). Clinical presentations of uterine leiomyomas include pelvic masses, pelvic pain, infertility and obstetric complications.⁷⁻⁹ Hence; the present study was conducted for assessing the pregnancy outcome among pregnant subjects with uterine fibroids.

Among the 100 subjects enrolled, mean age of the subjects was 34.3 years. 66 subjects were of multigravida. Mean duration of menstrual cycle per day was 28.5. Threatened miscarriage was present in 20 percent of the subjects. In 15 percent of the subjects, preterm labor was seen. Antepartum bleeding, Postpartum haemorrhage and abdominal pain needing admission was seen in 5 percent, 6 percent and 6 percent of the patients. Ciavattini A et al estimated the impact of sonographically identified multiple or large (≥5 cm in diameter) fibroids on obstetric outcomes. Retrospective cohort study of 219 women with uterine fibroids (identified on a routine

second-trimester ultrasound survey over a 3-year period, 2010-2012) and their age-matched controls. Inclusion criteria were singleton pregnancy, delivery at >24 weeks of gestation and no pathological conditions. Compared to women with no fibroids, women with multiple fibroids (n = 34) had a significantly higher rate of preterm birth (29.4% versus 5%, p < 0.001), cesarean section (73.5% versus 37%, p < 0.001) and breech presentation (11.8% versus 2.7%, p = 0.04). Women with large fibroids (n = 48) had a higher rate of preterm birth (16.7% versus 5%, p = 0.01) and pPROM. By multivariate analysis, only multiple fibroids and previous preterm birth showed an independent significant association with preterm birth. Women with uterine fibroids are at an increased risk of obstetric complications.¹⁰

In 2 percent of the patients, spontaneous pregnancy was seen, while premature delivery was seen in 23 percent of the patients. Vaginal delivery and C section were seen in 15 percent and 85 percent of the patients. Congenital anomaly was seen in 3 percent of the patients while NICU admission was seen in 5 patients. Radhika, B. H et al, in another previous study, presented the clinical, obstetric data, perinatal outcomes of 15 patients from a prospective study. Fifteen pregnant women with fibroid >3cm were prospectively included in study. Major proportion of patient with fibroids were in younger age group of 25-30 years when compared to older age group of 31-35 years (66% vs 33%). Fibroids were more frequent in multi-gravidae, compared to primigravidae. In almost

half of patients, (53.3%) fibroids were diagnosed before pregnancy. Common complications encountered during pregnancy in decreasing order of frequency were pain abdomen (46.6%), followed by threatened preterm labour (26.6%) and anaemia (26.6%). Out of 15, three (20%) women had abortion. In remaining, 11/12 patients attained term pregnancy between 37 to 40 weeks. Two patients required antenatal myomectomy. Caesarean section was done in 75% of women who attained term pregnancy and one patient had technical difficulty during caesarean section. Post partum haemorrhage was seen in 5/15 (33.3%) of patients. Out of 12, five babies were low birth weight. Four babies required NICU admission. There was no perinatal mortality.¹¹

CONCLUSION

Uterine fibroids during pregnancy are often associated with an increased risk of difficulties during the antepartum, intrapartum, and postpartum phases of the healing process.

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