

Effect of Uterine Fibroid on Pregnancy Outcome

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ABSTRACT

Objective: The aim of this study was to see the effect of uterine fibroid on pregnancy outcome.

Patients and method: This descriptive study was conducted at Services Hospital, Obstetrics & Gynaecological department, Lahore over a two year period. Total 22 pregnant patients with > 3cm were included in the study. They were followed during antenatal period. Maternal age, parity, size of fibroid, complications during pregnancy, labour and delivery, mode of delivery and indications of caesarean section were noted.

Result: Out of 22 patients, 8(36.5%) were asymptomatic during pregnancy. Most common complication during antenatal period was abdominal pain in 18%, malpresentation in 13.5% and preterm labour in 9%. Eight (36.5%) delivered by vaginal route and remaining 14(63.5%) were delivered by LSCS in which 9(41%) were elective LSCS and 5(23%) were emergency LSCS. Five (23%) experienced PPH but managed conservatively. One (4.5%) patient ended up in hysterectomy due to fibroid in lower segment. There was no perinatal mortality.

Conclusion: Pregnancies with uterine fibroid is a high risk pregnancy. These pregnancies had increased rate of caesarean delivery, increase chances PPH and longer stay at hospital.

Key words: Fibroid / leiomyoma with pregnancy, complications, caesarean hysterectomy.

INTRODUCTION

Uterine fibroid frequently occur in women of reproductive age group. As shown by different studies 20% of all women and 40% of women over age of 40 years have fibroid uterus^{1,2}. Most of the fibroids occur in fundus & body of uterus and only 3% are cervical fibroids³. During pregnancy 15-30% of myomas get enlarged due to increase estrogen and progesterin level but most of them shrink during perperium⁴. Pregnancies associated with fibroid are usually asymptomatic and without serious complications but sometimes adversely affect course of pregnancy^{4,5}. Intramural and subserous fibroids of less than 3cm are not clinically significant⁶.

Fibroid located in uterine cavity may increase chance of miscarriage, premature prelabour rupture of membranes, and preterm labour⁵. During pregnancy fibroids may undergo red degeneration causing severe lower abdominal pain⁷. Fibroids may also increase risk of malpresentation, intrauterine growth restriction (IUGR), abnormal implantation of placenta, placental abruption, pre-term labour, obstructed labour, dysfunctional labour and increase caesarean section rate^{8,9}. Women with fibroid have increased caesarean section rate¹⁰ due to distortion of birth canal or other obstetrics reasons.

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MATERIAL & METHODS

The study was conducted at department of Obstetrics & Gynaecology Services Hospital, Lahore during a period of 2 years from 1st April 2008 to 31st March 2010. All pregnant patients with fibroids \geq 3cm were included in the study. Patients with fibroids with less than 3cm were excluded from the study. Total 22 patients were followed during their antenatal period, clinically and ultrasonically. Fibroids were diagnosed by ultrasound. Hemoglobin was built up. Serial ultrasound done to see changes in size, growth of baby, malpresentation and placental localization. Patients were admitted when pain or threat to pre-term labour. Maternal age, parity, size of fibroid, complication during pregnancy, labour or delivery, mode of delivery and indication of caesarean section were noted.

RESULT

During the study period total number of pregnant women with fibroid \geq 3cm were 22. Age of patients with fibroid ranged from 20-40 years. In this study 8 patients (36.5%) were between 20-25 years. Twelve (55%) patients were 26-30 years old and 2(9%) patient were more than 30 years old. Four (18%) patients knew about fibroid before pregnancy while 2 (9%) were diagnosed on routine ultrasound before 12 weeks of gestation. Majority of the patients 8(36.5%) were diagnosed between 13-20 weeks. Five (23%)

came to know about fibroid at 21-28 weeks and 3 (15%) at 29-36 weeks.

Seven (32%) patients were asymptomatic. Eight patients had severe pain due to red degeneration & were managed conservatively with bed rest and analgesics. Three (13.5%) of them had recurrent problem and were admitted in hospital for more than 2-3 times. Three (13.5%) had malpresentation i.e transverse, oblique and breech. One (4.5%) had type III placenta previa & she had one episode of mild to moderate bleeding during antenatal period. Two had low birth weight and 2 (9%) started pre-term labour.

Eight delivered by vaginal route. Remaining 14 (63.5%) delivered by LSCS in which 9 (41%) were elective caesarean section and 5 (23%) were emergency LSCS due to fetal distress and failure to progress. One (4.5%) patient underwent caesarean hysterectomy due to fibroid in the lower uterine segment as it resulted in PPH. Remaining patients of PPH were managed conservatively. Two babies remained admitted in nursery due to prematurity. There was no perinatal mortality.

Table I: Age of study population (n =22)

Age in years	=n	%age
20-25 year	8	36.5
26-30 years	12	54.5
> 30 years	2	9

Table II: Duration of gestation at diagnosis (n=22)

	=n	%age
Pre-pregnancy diagnosis	4	18
< 12 weeks	2	9
13-20 weeks	18	81
21-28 weeks	5	23
29-36 weeks	3	13.5
> 36 weeks	0	0

Table III: Complications during pregnancy (n=22)

	=n	%age
Asymptomatic	8	36.5
Abortion	2	9
Pain (Abdominal pain)	4	18
Malpresentation	3	13.5
Placenta previa	1	4.5
LBW	2	9
Pre-term labour	2	9

Table IV: Complications during delivery (n=10)

	=n	%age
Prolonged labour	2	9
Fetal distress	3	13.5
PPH	5	23

Table V: Mode of delivery (n=22)

	=n	%age
SVD	8	36.5
LSCS	14	63.5
Caesarean Hysterectomy	1	4.5

Table VI: Indication of LSCS (n=14)

Elective Caesarean Section		Emergency Caesarean Section	
Mal-presentation	3(13.5%)	Failure to progress	2(9%)
Placenta previa	1(4.5%)	Fetal distress	3(13.5%)
Cervical / lower segment fibroid	2(9%)		
Moderate PIH	1(4.5%)		
Scared uterus	2(9%)		

DISCUSSION

Pregnancy with fibroid is potentially serious problem. In most of cases it does not effect pregnancy outcome but in some cases depending upon its size, location and site of placental attachment can result in miscarriage, premature pre-labour rupture of membranes, preterm labour, PPH and uterine inversion.

The mean maternal age of patients in our study was 33 years as it is shown in international studies.¹¹ Fourteen (65%) patients had problems during antenatal period in our study and 8 (35%) were asymptomatic as shown in similar studies by Khurshid Shabir Raja¹² and Monaghan JM¹³. Five (23%) patient had red degeneration and pain but only one patient had to be admitted for severe pain & it was managed conservatively. Winner and Muram et al had shown these findings¹⁴.

Only one (4.5%) patient had pregnancy loss in our study but is higher in other studies,¹⁵ this may be because most of the patients in our series had antenatal booking in late 2nd trimester. Myoma may distort uterine cavity & result in malpresentation¹⁶. In our study 3(13.5%) patient had malpresentation which is higher than a similar study from Islamabad.¹² Two (9%) of our patients delivered before term but 22.5% premature deliveries occurred in another study which is higher than our study¹⁸.

Mode of delivery in 63.5% were LSCS in our study which is higher in patients without fibroid and is also shown in study conducted by Hina Kokab et al¹⁷ and Tehente Neguefack C et al¹⁸.

CONCLUSION

Pregnancies with uterine fibroid are high risk. Most of them are asymptomatic but may adversely affect course of pregnancy and labour depending upon their location and size. These pregnancies had increased rate of caesarean delivery, increase chances of PPH and longer stay at hospital so needs particular follow up.

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