

Original paper**The Relationship between the Presence of Uterine Fibroid and Symptoms in Women 20-40 Years Old**Muna Kasim Mahmood.^{1*}, Zena Mahdi Abd Ali²¹obstetrics and gynecology department, College of medicine, Karbala university, Kerbala, Iraq²radiology and medical imaging, College of medicine, Karbala university, Kerbala, Iraq**Abstract****B** **background:** we examined the prevalence of uterine fibroid and menstrual cycle characteristics in a population of non-care-seeking women.**Methods:** this is a cross-sectional study involves 175 women who were not lactating or using contraception and their age between 20-40. After taking history transvaginal ultrasound done to these female. We examined the association between menstrual cycle characteristic and the presence of uterine fibroid.**Results & discussion:** uterine leiomyomata were detected in 31 women (17.71%). The presence of uterine leiomyoma was not significantly related to amount of blood loss with menstrual cycle, regularity of the cycle, dysmenorrhea or deep pelvic pain.**Conclusion:** in this population of non-care seeking women, menstrual cycle abnormalities are not related to the presence of uterine leiomyoma.**Keywords:** Uterine Fibroid, Menstrual cycle, uterine, Leiomyoma**Introduction**

Uterine fibroids (leiomyoma) are benign smooth muscle tumors of the uterus. Estimates of leiomyoma prevalence range from 3-20% with African – American and older women having the highest prevalence⁽¹⁾. Uterine fibroids have been identified as one of the leading cause of hospitalization for gynecological disorders and hysterectomy in the USA⁽²⁾. Chronic pelvic pain or menorrhagia are the usual indication of hysterectomy in females with uterine fibroid⁽³⁾. Despite the fact that the cause of uterine fibroid is still not well known, but there is considerable evidence that estrogen and progesterone increase tumor growth as uterine fibroid rarely appears before menarche and regress after menopause⁽⁴⁾.

In US study, the incidence of uterine fibroid was 60% among African-American women and 40% in Caucasian women of the same age⁽⁵⁾.

Apart from race, other possible risk factors for developing uterine fibroids are early age at menarche, familial predisposition and overweight females, while high parity and smoking may give protection for the developing uterine fibroids⁽⁶⁾. The majorities of women with uterine fibroids are symptomatic; consequently get less clinical attention and fibroids remain undiagnosed⁽⁷⁾.

Symptomatic women typically complaining from abnormal uterine bleeding, specifically in terms of heavy and prolonged bleeding⁽⁸⁾.

Additionally, women with uterine fibroids may suffer more often from dysmenorrhea, dyspareunia and non-cyclical pelvic pain⁽⁹⁾.

Patients and methods

This study is a cross sectional study done in Karbala city outpatient clinic, in the period between September 2012- July 2013. The study involves non – care seeking 175 female who were not

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pregnant, lactating or using contraception and their age between 20 – 40years. History was taken from them (age, parity, abortion, regularity of the cycle, and amount of blood loss, prolonged duration of blood loss, bleeding between period, dysmenorrhea and deep pelvic pain) and

transvaginal ultrasound done for them. The prevalence of uterine fibroid and the association between uterine fibroid and menstrual cycle characteristics were calculated using **SPSS** version 10.

Result

Table 1. Shows the characteristics of the population studied

	Number of cases	
Age (mean)	175	30.18 year
Parity (mean)		
- Nulliparase	52	29.71%
- At least one delivery	123 (1.85)	70.28%
History of abortion	51	29.14%
Regular cycle	133	76%
Irregular cycle	42	24%
Heavy cycle	20	11.42%
dysmenorrhea	11	6.28%
Chronic pelvic pain	1	0.062%
Uterine fibroid detected by ultrasound	31	17.71%
Prolong bleeding	0	
Bleeding between period	0	

The mean age for the studied group is 30.18 year. Of the studied group 123 (70.28%) had previous delivery and 52 (29.71%) had no previous delivery (mean parity of the studied group is 1.85). 51 (29.14%) had previous abortion. 133 (76%) had regular cycle and 42 (24%) had irregular cycle. 20 (11.42%) had heavy cycle and 11 (6.28%) had dysmenorrhea. 1 (0.062%) had chronic pelvic pain. Ultrasound report 31 (17.71%) had uterine fibroid. None of the participants report prolonged bleeding or bleeding between periods.

Table 2. The relationship between age and presence of uterine fibroid

Uterine fibroid	Mean age (year)	Number	S.D
No fibroid	29	144	5.67
One fibroid	35.6	17	3.53
Two fibroid	36.25	8	3.37
Three fibroid	35	6	4.81
total	30.18	175	5.93

We found that with no uterine fibroid the mean age of the studied group is 29, with the presence of one uterine fibroid the mean age is 35.6, with the presence of two uterine fibroids the

mean age is 36.25 and with the presence of 3 uterine fibroids the mean age is 35. With increasing female age the number of uterine fibroids is also increased.

Table 3. Relationship between regularity of the cycle and the presence of uterine fibroid by ultrasound.

Cycle regularity	fibroid				p. value
	0	1	2	3	
Regular	115	11	3	4	0.15
irregular	29	6	5	2	0.249

Of the studied group 115 females with no uterine fibroid, 11 females with one uterine fibroid, 3 females with 2 fibroids and 4 females with 3 uterine fibroids had regular cycle and the difference was statistically not significant (P. value 0.15). 29 females with no fibroid, 6 females with one fibroid, 5 females with 2 fibroids and 2 females with 3 uterine fibroids had irregular cycle and the difference was statistically not significant (P. value 0.249).

Table 4. the relationship between heavy blood loss and the presence of uterine fibroid by ultrasound.

Cycle	fibroid				p. value
	0	1	2	3	
Normal loss	138	12	3	2	0.02
Heavy loss	6	5	5	4	0.04

138 female with no uterine fibroid, 12 female with one uterine fibroid, 3 female with 2 uterine fibroid and 2 female with three uterine fibroid had normal blood loss with each menstrual cycle (the difference was not statistically significant P.value 0.02). 6 female with no uterine fibroid, 5 female with one uterine fibroid, 5 female with 2 uterine fibroid and 4 female with 3 uterine fibroid had increase amount of blood loss with each menstrual cycle (the difference was not statistically significant P.value 0.04).

Table 5. the relationship between dysmenorrheo and the presence of uterine fibroid.

dysmenorrheo	fibroid				P.value
	0	1	2	3	
present	4	1	4	2	0.013
absent	140	16	4	4	0.101

Four women without uterine fibroid, one women with one fibroid, four women with 2 uterine fibroid and two women with 3 fibroid had dysmenorrheo (the difference was not statistically significant P.value 0.013). 140 female without uterine fibroid, 16 female with 1 fibroid, 4 female with 2 uterine fibroid and 4 female with 3 uterine fibroid had no dysmenorrheo (the difference was not statistically significant P.value 0.101).

Table 6. the relationship between deep pelvic pain and the presence of uterine fibroid.

Deep pelvic pain	fibroid				p.value
	0	1	2	3	
present	0	0	1	0	0.01
absent	144	17	7	6	0.098

Only one female with 2 uterine fibroid had deep pelvic pain in the studied group.

Discussion

Most studies of the relationship of leiomyoma to menorrhagia and other menstrual cycle characteristics have been based on care-seeking populations, including women undergoing myomectomy or hysterectomy^{10,11,12} or tubal ligation¹³. However, clinic based studies may not be generalizable because women who have menstrual cycle irregularities may be more likely than a symptomatic women to seek treatment and to be referred for surgery and women who seek sterilization are more likely to be fertile than other women.

In one study which have examined the association of leiomyoma and menstrual cycle changes in a non-care seeking population, the presence of ultrasound – diagnosed leiomyoma was associated with gushing –type bleeding¹⁴. In our study the relationship between menorrhagia and uterine fibroid was not statistically significant.

In a general population of non-care seeking Italian women found that dyspareunia and non-cyclic pelvic pain, but not dysmenorrheo increased in severity with the presence of uterine leiomyoma¹⁵. In our study the relationship between uterine fibroid and dysmenorrheo was not significant statistically and only one case with 2 uterine fibroid experienced deep pelvic pain.

The prevalence of leiomyoma rate in a non-care seeking population was 21.4%¹⁶, while it was 20% in another study¹⁷. In our study the prevalence of uterine fibroid is 17.71%

Conclusion

The prevalence of uterine fibroid in the studied population is 17.71%, many women with uterine fibroid had normal menstrual cycle, many women with no uterine fibroid had menstrual cycle irregularity, so menstrual cycle abnormalities are not related to the presence of uterine leiomyoma.

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