

CLINICAL AND DEMOGRAPHIC PROFILE OF WOMEN WITH UTERINE FIBROIDS LIVING IN PUERTO RICO

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Abstract

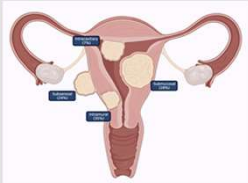
Introduction - Uterine leiomyomas represent the most common benign tumor in women of reproductive age. Given the epidemiologic significance and health concerns that can arise from the development of uterine fibroids, our primary goal is to determine the profile of uterine fibroids among women in Puerto Rico.

Methods - Clinical, menstrual cycle characteristics and demographic data were collected from self-administered questionnaires in various gynecological clinics in Southern Puerto Rico. We used Means, standard deviations, and t-tests for continuous variables and frequencies, percentages, and χ^2 for categorical variables. Statistical significance was $P < 0.05$.

Results - We identified 312 cases of uterine fibroids from 1610 cases in the database, for an estimated point prevalence of uterine fibroids of 19.4% in our study cohort. The average age at menarche was 12 years old, with the majority of cases between 12 to 13 years of age. Menstrual cycle length was between 27-30 days, mostly regular, and period length was 5.9 days on average. Average primiparous age was 22.14 years, 40.71% had 2-3 pregnancies, and 26.28% reported miscarriages. Symptomatology included dysmenorrhea, incapacitating pain, problems conceiving, and dyspareunia. Comorbidities included ovarian cysts, abnormal uterine bleeding, gynecological infections, and abnormal Pap smear.

Conclusions - This study assessed the basic epidemiology and reproductive characteristics of women with uterine fibroids in Puerto Rico for the first time. Future studies are needed to identify risk factors that might play a role in the development of uterine fibroids with the ultimate goal of treating, managing, and initiating primary preventive measures.

Introduction



- Uterine fibroids are a heterogeneous group of benign tumors ¹.
- Most common benign tumors in women of reproductive age ^{2,3}.
- Estimated overall prevalence up to 70% in the US ^{2,3}.

- Approximately 25% to 50% of women with fibroids are symptomatic ^{4,7}.
- Clinical data shows that subserosal and intracavitary fibroids present with pelvic pain and bladder dysfunction ^{8,9}.
- Meanwhile, submucosal and intramural fibroids present more frequently with symptoms of heavy menses and abnormal uterine bleeding ^{8,9}.
- However, up to 50% cases are asymptomatic ¹⁰.

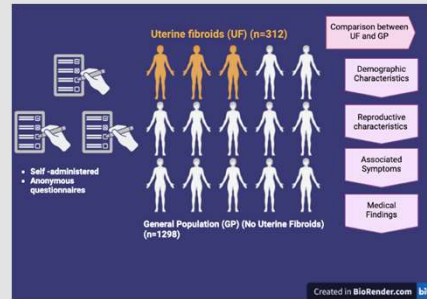
- Despite the high incidence and prevalence of uterine fibroids in the US among non-Hispanic African American and Caucasian women, limited data exist on the epidemiology of fibroids among women with Hispanic backgrounds ^{4,11}.

- Some studies suggest that Hispanic women are 2x more likely to be diagnosed with uterine fibroids than women of White ethnicity ^{12,13}.

Specific aims

- Determine the prevalence of Puerto Rican women affected by uterine fibroids.
- Describe the demographic, menstrual, obstetric, and gynecological profile of Puerto Rican women with uterine fibroids.

Methodology



Results

Table 1: Demographic Characteristics of patients with uterine fibroids compared to the general population

Characteristics	General Population (No Uterine Fibroids) (n=1298)	Uterine Fibroids (n=312)	P value
Age group, years			
<19	5.5	1.0	
20-29	30.6	9.3	
30-39	39.0	36.9	<0.001
40-49	14.6	48.4	
>50	2.5	4.2	
Education level, %			
High School	18.5	22.0	
1 to 4 years of college	64.5	61.9	NS
Graduate Education	13.8	14.0	
Marital Status, %			
Single	31.7	23.4	
Married	55.4	57.2	
Consensual	4.9	4.6	<0.05
Divorced	6.3	11.2	
Widowed	0.6	1.3	
Medical Insurance, %			
Private	59.8	74.4	
Public Health System	13.9	19.9	NS
No insurance	0.8	1.3	

Table 2. Characteristics of and the distribution of uterine fibroids among variables

Characteristics	General Population (No Uterine Fibroids) (n=1298)	Uterine Fibroids (n=312)	P value
Primiparous age, mean	22.49	22.14	<0.05
<20	14.84	25.64	
21-25	13.93	22.12	NS
>26	9.17	14.42	
Parity			
0-1	48.89	38.78	
2-3	27.12	40.71	<0.001
≥4	8.09	16.35	
Miscarriages	15.56	26.28	<0.05
Miscarriages, number			
1	11.71	18.27	
2	2.47	6.09	NS
≥3	1.46	1.92	
Previous OCP use	59.17	71.47	NS
Current OCP use	9.40	7.37	<0.05
Age at menarche, mean (range)	12 (7-17)	12 (8-18)	
<9 years	1.9	0.6	
9-11 years	40.2	38.2	NS
12-13 years	43.6	45.2	
>14 years	13.6	17.3	
Cycle, %			
Regular	61.0	76.6	<0.05
Irregular	25.7	22.4	
Length of menses, mean (range)	5.7(1-18)	5.9(1-16)	<0.001
Short (1-4 days)	18.34	20.83	
Average (5-6 days)	38.99	44.23	NS
Long (≥7 days)	24.58	30.77	
Menstrual cycle length, mean (range)	41.07(15-120)	26.13(15-125)	
<21 days	4.9	4.8	
22-26 days	6.1	8.0	NS
27-30 days	56.9	69.9	
>31 days	14.2	12.5	

Results

Table 3. Most common symptoms associated with uterine fibroids compared to the general population

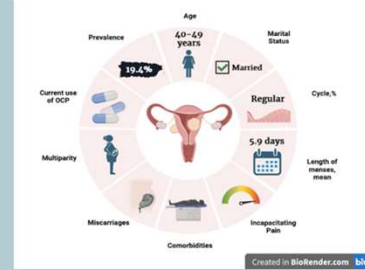
Characteristics	General Population (No Uterine Fibroids) (n=1298) %	Uterine fibroids (n=312) %	P value
Dysmenorrhea	81.7	75.6	<0.05
Incapacitating Pain	46.3	50	<0.05
Dyspareunia	45.6	40.7	<0.05
Problems to conceive	38.0	29.5	<0.001

Table 4: Medical findings in women with uterine fibroids compared to the general population (no uterine fibroids)

Medical Disease	General Population (No Uterine Fibroids) (n=1298) %	Uterine fibroids (n=312) %
Ovarian Cysts	34.6	52.2
Abnormal Uterine Bleeding	14.8	37.8
Gynecological Infections	19.3	52
Abnormal PAP Smear	10.6	25.3
Asthma	11.2	18.7
Hypothyroidism	5.9	13.5
Fibromyalgia	4.5	10.3
High Blood Pressure	3.0	9.9
Migraines	3.5	8.0
Polycystic ovarian Syndrome	2.9	7.4
Irritable Bowel Syndrome	3.2	4.8
Diabetes	2.1	4.5
Pelvic Inflammatory Disease	2.2	3.5
Cancer	1.3	1.9
Sinusitis	1.5	1.9

Conclusion

Clinical and Demographic Profile of Women with Uterine Fibroids in Puerto Rico



- In summary, this is, to our understanding, the first study that aimed to describe the epidemiologic and reproductive characteristics of women with uterine fibroids in Puerto Rico.

- We estimated that the prevalence of uterine fibroids in our study cohort is 19.4%, comparable to what has been reported in other populations (4.5-68.6%) ^{4,14-18}.

- Interestingly and contrary to what has been previously reported, our study showed that the presence of uterine fibroids was unrelated to the age of menarche, menstrual cycle, and flow length ¹⁹⁻²².

- In our study, the most prevalent comorbidities of gynecological conditions among women with uterine fibroids were gynecological infections, abnormal pap smears, ovarian cysts and abnormal uterine bleeding.

- Although further studies are needed, our results are expected to provide patients and health care providers with information that may lead to early diagnosis and improved management of patients with uterine fibroids.

Future Studies

Create a genetic analysis to understand how the heterogeneous inheritance of Puerto Rican women affects the prevalence of uterine fibroids by the predominance of genetic background (white vs. African-American vs. Native American heritage).

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