# CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF FERTILE AGED WOMEN WITH UTERINE LEIOMYOMA, RESIDENTS OF INDUSTRIAL REGION OF UKRAINE

### INTRODUCTION

Healthcare issues are in priority because people's health is the greatest social and individual value, as the health of the population largely influences on the processes and results of the economic, social and cultural development. Therefore they are issues of national security and an important criterion for social development and well-being of the country [1–3, 10].

An important parameter characterizing reproductive health of woman is gynecological diseases, their frequency is increasing every year [1, 2, 10]. Among gynecological morbidity in fertile aged women more often appears hyperplasic processes among which the greatest impact on reproductive health has uterine leiomyoma [4–6].

#### ANALYSIS OF LITERARY DATA AND AIM OF THE STUDY

Leiomyoma is one of the most frequent uterine pathologies. Uterine leiomyoma clinically manifested in 20–30% of women, in 80% cases fibroids are removed with following histological examination. Appearances of symptoms of the disease usually increase with age. In the USA, fibroids are the main cause for hysterectomy in women 40 years old and above, the total number ranged in about 30% of all cases, in Caucasians more than 50% cases. In women of black race adjusted relative risk of developing uterine fibroids compared to the 3.25 rate of white women in a large prospective cohort [4, 5, 7].

It is known about close relationship of steroid metabolism with autonomic nervous system, which provides mechanisms for homeostasis in the body. Violations in steroid metabolism or autonomic homeostasis can lead to development of pathological processes [8, 9].

The aim of study is to provide clinical and epidemiological characteristics of fertile aged women with uterine leiomyoma residents of the industrial region of Ukraine.

### MATERIALS AND METHODS

Clinical and epidemiological studies have been provided in a population of fertile aged women to determine the frequency and structure of violations of reproductive health. Research has been done in the Dniprovskyi district of Kyiv, which was chosen as the one that corresponds to the typical industrial region of Ukraine. We examined 1000 fertile aged women, residents of Dniprovskyi district of Kyiv. For the clinical and epidemiological program a special questionnaire "Study of reproductive health of fertile aged women" was created – brochure contains 3 sections: "Basic questionnaire", "Your family" and "Medical interview". Questionnaires were distributed among fertile aged women. After completing 2 sections of questionnaire: "Basic questionnaire" and "Your family" women were invited to the doctor, where part "Medical interview" was filled together with medical examination and special examinations.

Clinical and epidemiological studies were population-based, cohort prospective studies. Determination of the population of fertile aged women and individual work with each woman held according to existing methods of clinical epidemiology and the principles of bioethics.

All information was inputted in paper media, were introduced later in the computer memory, thereby a computer database of surveyed women fertile aged women was created and provided further analysis of research results.

Statistical analysis was performed using applications MS Excel 2003, and SigmaPlot<sup>®</sup> 13.0. The reliability of data for independent samples calculated using the Student t-test. Confidence intervals were calculated by a Wald normal distribution.

#### STUDY RESULTS AND DISCUSSION

The results of clinical and epidemiological studies have shown that the incidence of uterine leiomyoma in 1000 fertile aged women in the study area is 53.0 (5.3%).

According to official statistics the frequency of uterine leiomyoma in fertile aged women (1000 women) in the Dniprovskyi district of Kyiv on average for 5 years was 5.1, and differs from the overall frequency in the Kyiv, which is 4.4. The lowest rate in the Dniprovskyi district was in 2010 and amounted to 4.6 against the highest in 2013 – 5.6. Also, the trend of increasing frequency of uterine leiomyoma observed in the whole city, where these rates in 2009 were minimal and increased in 2011 (respectively 3.9 and 4.6).

Annually, the clinical supervision on uterine leiomyoma in medical institutions in the Dniprovskyi district in average for 5 years was done for 4802 women, and 22092 women in all Kyiv. Thus, every year clinical supervision on uterine leiomyoma adds in average 779 women, and overall in Kyiv 5287 women; withdrawn from clinical supervision in the Dniprovskyi district 854 and 5248 women in Kiev.



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Thus, due to the recovery on leiomyoma in the Dniprovskyi district 15.3% of women, and overall in Kyiv 18.7% of women were removed from clinical supervision. The difference is almost 3% is reserve for more effective treatment of uterine leiomyoma in the Dniprovskyi district.

It should be noted that in average over five years rates of clinical supervision withdrawal due to recovery of symptomatic uterine leiomyoma is 25.32%, and in Kyiv is 43.76%. The data of effective treatment and removal of clinical supervision women with uterine leiomyoma shows that treatment for women with symptomatic uterine leiomyoma is done much better.

Fertile aged women that had uterine leiomyoma were in the age group of 30–40 years at most (Tab. 1). Rate of uterine fibroids in the age of 26–30 years was 22.6%, in women aged 31–35 uterine leiomyoma was diagnosed in 28.3% and in the age 36–40 years in 18.9% of women.

TABLE 1. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY AGE			
Age, years	The number of fertile aged women with uterine leiomyoma		
	n*	% (range)	
15–19	-	-	
20–25	5	9.4 (1.6 – 17.3)	
26–30	12	22.6 (11.4 – 33.9)	
31–35	15	28.3 (16.2 – 40,4)	
36-40	10	18.9 (8.3 – 29.4)	
41-45	7	13.2 (4.1 – 22.3)	
46-49	4	7.6 (0.4 – 14.7)	
* p = 0.00192			

Most women with uterine leiomyoma had well-being families – 62.3% (Tab. 2), but 26.4% of women had incomplete family.

TABLE 2. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY
MARITAL STATUS

Marital status	The number of fertile aged women with uterine leiomyoma		
Maritai Status	n*	% (range)	
Well-being family	33	62.3 (49.2 – 75.3)	
Not well-being families	5	9.4 (1.6 – 17.3)	
Incomplete family	14	26.4 (14.5 - 38.3)	
Family members who were convicted	1	1.9 (1.8 – 5.5)	

\* p = 0.0406

More than half of women with uterine leiomyoma had higher education -52.8% and by social status were employees -49.0% (Tab. 3, 4).

In women with uterine leiomyoma were observed violations of menstrual function (Tab. 5) that in 54.7% cases manifested as irregular menses, pelvic pain (43.4%), significant blood loss (52.8%) and prolonged menstrual cycle (45.3%).

The development of uterine leiomyoma in fertile aged women took place on a background of pelvic inflammatory diseases (Tab. 6), which manifested in 64.2% of women and in 22.6% of women with cervical erosion.

# TABLE 3. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY LEVEL OF EDUCATION

Level of education	The number of fertile aged women with uterine leiomyoma		
Lever of education	n*	% (range)	
High	28	52.8 (39.4 - 66.3)	
Student	5	9.4 (1.6 – 17.3)	
Vocational	12	22.6 (11.4 – 33.9)	
Secondary	8	15.1 (5.5 – 24.7)	
Incomplete secondary	-	-	
* n — 0.00102			

p = 0.00192

# TABLE 4. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY SOCIAL STATUS

Social status	The number of fertile aged women with uterine leiomyoma		
Social status	n*	% (range)	
Pupils and students	-	-	
Employees	26	49.0 (35.6 - 62.5)	
Workers	11	20.8 (3.8 - 31.7)	
Housewives	10	18.9 (8.3 – 29.4)	
Unemployed	6	11.3 (2.8 – 19.9)	

\* p = 0.001

# TABLE 5. MENSTRUAL FUNCTION OF FERTILE AGED WOMEN WITH UTERINE LEIOMYOMA

Menstrual function characteristics	The number of fertile aged women with uterine leiomyoma	
	n*	% (range)
Age of onset of menstruation: before 15 years after 15 years	31 22	58.5 (45.2 – 71.8) 41.5 (28.2 – 54.8)
Duration of menstrual cycle, days: 21–25 26–28 29–35	12 17 24	22.6 (11.4 – 33.9) 32.1 (19.5 – 44.6) 45.3 (31.9 – 59.7)
The amount of blood loss during menstruation: insufficient moderate significant	15 10 28	28.3 (16.2 – 40.4) 18.9 (8.3 – 29.4) 52.8 (39.4 – 66.3)
Pain during menstruation: no minor strong	12 18 23	22.6 (11.4 – 33.9) 33.9 (21.2 – 46.7) 43.4 (30.1 – 56.7)
Cycling menstrual function: regular irregular	24 29	45.3 (31.9 – 59.7) 54.7 (41.3 – 68.1)

\* p = 0.0353

# TABLE 6. GYNECOLOGICAL DISEASES IN WOMEN OF FERTILE AGE WITH UTERINE LEIOMYOMA

Type of gynecological diseases	The number of fertile aged women with uterine leiomyoma	
	n*	% (range)
Pelvic inflammatory diseases	34	64.2 (51.2 - 77.1)
Cervical erosion	12	22.6 (11.4 - 33.9)
Endometriosis	5	9.4 (1.6 - 17.3)
Polycystic ovary syndrome	17	32.0 (19.5 - 44.6)
* n = 0.031		

p = 0.031

Many women with uterine leiomyoma (71.7%) underwent artificial abortion, and had a history of spontaneous abortions (22.6%) and benign ovarian cysts (16.9%). A significant number of pelvic inflammatory diseases, artificial abortion certainly led to violations of the balance of sex hormones, which is causing the growth of benign ovarian cysts and uterine leiomyoma (Tab. 7). Some women underwent surgical treatment of uterine leiomyoma (7.5%), but had a recurrence of tumor growth.

### TABLE 7. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN THAT HAD GYNECOLOGICAL SURGERY

Turne of currently	The number of fertile aged women with uterine leiomyoma		
Type of surgery	n*	% (range)	
Abortion artificial	38	71.7 (59.6 – 83.2)	
Abortion spontaneous	12	22.6 (11.4 – 33.9)	
Ovarian apoplexy	1	1.9 (1.8 – 5.5)	
Ectopic pregnancy	5	9.4 (1.6 – 17.3)	
Benign ovarian cysts	9	16.9 (6.9 – 27.1)	
Myomectomy	4	7.5 (0.4 – 14.7)	

\* p = 0.0467

Examined women had different uterine leiomyoma disease duration (Tab. 8).

TABLE 8 DURATION OF UTERINE LEIOMYOMA IN EXAMINED

FERTILE AGED WOMEN			
Disease duration, years	The number of fertile aged women with uteri s leiomyoma		
	n*	% (range)	
>1	19	35.8 (22.9 – 48.8)	
to 2	27	50.9 (37.5 – 64.4)	
3	7	13.2 (4.1 – 22.3)	
5	-	-	
>5	_	_	

\* p = 0.0130

Disease duration of more than one year had 35.8% of fertile aged women two years – 52.9% and three years – 13.2%.

Leiomyoma's localization (Tab. 9) more frequent was intramural 39.6% and subserous 16.9%. In 16 women (30.2%) the localization was not specified.

# TABLE 9. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY LOCALIZATION

Localization of uterine	The number of fertile aged women with uterine leiomyoma	
leiomyoma	n*	% (range)
Submucosal	7	13.2 (4.1 – 22.3)
Intramural	21	39.6 (26.5 – 52.8)
Subserous	9	16.9 (6.9 – 27.1)
Unspecified	16	30.2 (17.2 – 42.5)

\* p = 0.00313

For the location of benign tumors (Tab. 10) frequently observed in the lower segment of the uterus (32.1%), in the

# TABLE 10. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY LOCATION

Location uterine	The number of fertile aged women with uterine leiomyoma		
leiomyoma	n*	% (range)	
In the uterus	13	24.5 (12.9 – 36.1)	
In the lower segment	17	32.1 (19.5 – 44.6)	
In the left or right uterine wall	10	18.9 (8.3 – 29.4)	
On the front wall of the uterus	6	11.3 (2.8 – 19.9)	
On the back wall of the uterus	7	13.2 (4.1 – 22.3)	

\* p = 0.004

uterus (24.5%) and on the left or right wall of the uterus (18.9%). Almost half of women (41.9%) had not a large leiomyoma (Tab. 11), uterus size corresponded to 12 weeks of pregnancy, others had size from 13 to 16 weeks (49.1%).

TABLE 11. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY SIZE

The size of uterine leiomyoma (according to the size of the	The number of fertile aged women with uterine leiomyoma	
uterus in weeks of pregnancy)	n	% (range)
Below 12 weeks	26	49.1 (35.6 – 62.5)
13–16 weeks	26	49.1 (35.6 – 62.5)
17-24 week	1	1.9 (1.8 – 5.5)
More than 24 weeks	-	-

By the number of nodes in the uterus (Tab. 12) one node had 64.0% women, two to three nodes – had 26.4% and more than three nodes had 13.2% women.

#### TABLE 12. RATES OF UTERINE FIBROIDS IN FERTILE AGED WOMEN BY QUANTITY OF NODES

Quantity of nodes	The number of fertile aged women with uterine leiomyoma	
	n	% (range)
One	32	60.4 (47.2 - 73.5)
Two or three	14	26.4 (14.5 – 38.3)
More than three	7	13.2 (4.1 – 22.3)

Regarding uterine leiomyoma women underwent a sufficient number of diagnostic methods (Tab. 13). All women had pelvic ultrasound. Half of the women (50.9%) were provided colposcopic examination of the cervix, only 37.8% of women were provided histological study of the endometrium, endometrial cells for examination in 20.8% cases were obtained through dilation and curettage, in 3.8% via hysteroscopy, while 13.2% using pipelle biopsy. Vaginal swabs were provided in 13.2% of women, and hormonal testing in 15.1%.

Doppler ultrasound of vessels of internal genital organs of women with uterine leiomyoma provided only in 9.4% of patients. After the diagnostic manipulations non-surgical and non-hormonal treatment had 39.6% of women, 22.6% of women agreed to have a hormonal treatment. Surgical treatment of leiomyoma had 7.5% of women.

# TABLE 13. METHODS OF DIAGNOSIS AND TREATMENT OF UTERINE FIBROIDS IN FERTILE AGED WOMEN

Methods of diagnosis and treatment	The number of fertile aged we with uterine leiomyoma	
	n*	% (range)
Dilation and curettage	11	20.8 (9.8 - 31.7)
Endometrium pipelle biopsy	7	13.2 (4.1 – 22.3)
Ultrasound	53	100.0
Colposcopy	27	50.9 (37.5 - 64.4)
Hysteroscopy	2	3.8 (1.4 - 8.9)
Doppler ultrasound	5	9.4 (1.6 – 17.3)
Hormonal examination	8	15.1 (5.6 – 24.7)
Determination of urogenital microbiocenosis	7	13.2 (4.1 – 22.3)
Conservative treatment: non-hormonal therapy hormonal therapy	21 12	39.6 (26.5 – 52.8) 22.6 (11.4 – 33.9)
Surgery: laparoscopic laparotomic myomectomy hysterectomy without cervix full hysterectomy vascular embolization	- 4 - -	- 7.5 (0.4 – 14.7) - -
	-	-

\* p = 0.004

Taking to account that uterine leiomyoma may lead to infertility we paid special attention to characteristics of reproductive function in women with this benign tumor (Tab. 14).

# TABLE 14. RATES OF REPRODUCTIVE FUNCTION IN FERTILE AGED WOMEN WITH UTERINE FIBROIDS

Characteristics of reproductive function	The number of fertile aged women with uterine leiomyoma	
Tunction	n*	% (range)
Deliveries before diagnosed uterine leiomyoma: one two three or more	17 12 -	32.1 (19.5 – 44.6) 22.6 (11.4 – 33.9) –
Deliveries with diagnosed uterine leiomyoma: one two three or more	2 - -	3.8 (1.4 – 8.9) – –
Deliveries after non-surgical treatment of uterine leiomyoma: one two three or more	4 - -	7.5 (0.4 – 14.7) – –
Deliveries after surgical treatment of uterine leiomyoma: one two three or more	1 - -	1.9 (1.8 – 5.5) – –
* n — 0.0/12		

\* p = 0.0412

One delivery before diagnosed uterine leiomyoma had 32.1% of women, and two deliveries had 22.6%. Number of deliveries with diagnosed uterine leiomyoma in surveyed women was insignificant (one delivery had only 3.8% women). Number of

deliveries in women after treatment of uterine leiomyoma with non-surgical methods in this group of women has increased almost twice and amounted 7.5%, and after surgical treatment (conservative myomectomy) 1.9%.

Women with uterine leiomyoma had concomitant nongynecological diseases (Tab. 15), the most frequent was somatoform dysfunction of the autonomic nervous system (66.0%), diseases of the gastrointestinal tract such as cholecystitis (26.4%) and gastritis (22.6%). Frequently manifested upper respiratory tract diseases – chronic tonsillitis (18.9%).

# TABLE 15. NON-GYNECOLOGICAL DISEASES IN FERTILE AGED WOMEN WITH UTERINE FIBROIDS

Non-gynecological diseases	The number of fertile aged women with uterine leiomyoma	
	n*	% (range)
Somatoform dysfunction of autonomic nervous system	35	66.0 (53.3 – 78.8)
Gastrointestinal tract: gastritis cholecystitis	12 14	22.6 (11.4 – 33.9) 26.4 (14.5 – 38.3)
Diseases of the upper respiratory tract: chronic tonsillitis	10	18.9 (8.3 – 29.4)
Diseases of the urinary tract: urolithiasis cystitis	3 5	5.7 (0.6 – 11.9) 9.4 (1.6 – 17.3)

\* p = 0.0188

Unfortunately, a significant number of fertile aged women with uterine leiomyoma had bad habits (Tab. 16), the most frequently occurring was smoking (43.4%) and excessive alcohol consumption (9.4%).

# TABLE 16. BAD HABITS IN FERTILE AGED WOMEN WITH UTERINE FIBROIDS

Bad habits	The number of fertile aged women with uterine leiomyoma	
	n	% (range)
Smoking	23	43.4 (30.1 – 56.7)
Excessive alcohol consumption	5	9.4 (1.6 – 17.3)
Excessive use of psychotropic drugs and medicines	2	3.8 (1.4 – 8.9)

It should be noted that women with uterine leiomyoma actively used methods of contraception (Tab. 17).

TABLE 17. CONTRACEPTIVE CHOICES IN FERTILE AGED WOMEN	
WITH UTERINE FIBROIDS	

Methods of	The number of fertile aged women with uterine leiomyoma	
contraception	n*	% (range)
Barrier	14	26.4 (14.5 - 38.3)
Intrauterine device	12	22.6 (11.4 – 33.9)
Oral	17	32.1 (19.5 – 44.6)
Not used	10	18.9 (8.3 – 29.4)
×		

\* p = 0.00151

Most often women with uterine leiomyoma were using oral hormonal contraceptives (32.1%), barrier methods (26.4%) and intrauterine device (22.6%), 18.9% of women were not using contraceptives.

#### CONCLUSIONS

1. The problem of uterine leiomyoma is important for fertile aged women residents of Dniprovskyi district and for Kyiv overall, with the incidence of uterine leiomyoma in fertile aged women was 5.1% per 1000 women, which is slightly higher than the average according to the official statistics (4.4% per 1000 women).

2. Gynecological diseases and conditions that can be considered as risk factors of uterine leiomyoma revealed in

#### **REFERENCES/ЛІТЕРАТУРА**

1. Жилка, Н.Я, Іркіна, Т.К., Тешенко, В.

Стан репродуктивного здоров'я в Україні: Медико-демографічний огляд. — К.: МОЗ України, НАН України, Інститут економіки. — 2001. — 68 с.

Zhylka, N.Y., Irkina, T.K., Teshenko, V.

Reproductive health in Ukraine: Medical-demographic survey. Kyiv. MOH of Ukraine, NAMS of Ukraine, Institute of Economics (2001): 68 p.

#### 2. Подольський, В.В.

Репродуктивне здоров'я жінок — важлива проблема сучасності / В.В. Подольський // Здоровье женщины. — 2003. — №1 (13). — С. 100–104.

Podolskyi, V.V.

"Reproductive health is an important health problem of our time."Women's Health, 1(13) (2003): 100–104. 3. Камінський, В.В.

Збереження репродуктивного здоров'я жінки — основа формування здорової нації / В.В. Камінський, Л.Б. Маркін та ін. // Здоров'я України. — 2008. — №9. — С 58–59. Kaminskyi, V.V., Markin, L.B., et al.

"Reproductive health of women of a healthy nation – the foundation of a healthy nation." Health of Ukraine, 9(2008): 58–59.

4. Руководство по эндокринной гинекологии / Под ред. Е.М. Вихляевой. — М.: Мед. информ. — 1997.

Endocrine Gynecology Guidelines // Ed. by E.M. Vikhlyaeva.

Moscow. Med. Inform (1997).

5. Стрижаков, А.Н., Давыдов, А.И., Пашков, В.М., Лебедев, В.А. Доброкачественные заболевания матки. — М.: ГЭОТАР. — 2011. — 288 с. Strizhakov, A.N., Davidov, A.I., Pashkov, V.M., Lebedev, V.A. Benign diseases of the uterus. Moscow. GEOTAR (2011): 288 p. high rates of examined fertile aged women. Among them, chronic pelvic inflammatory diseases had 64.2% women; polycystic ovary syndrome had 32.0%; cervical erosion 22.6%; artificial abortions had 71.7% women with uterine leiomyoma.

3. In fertile aged women residents of the industrial region of Ukraine with uterine leiomyoma among social factors noteworthy is young age (30 to 40 years), by marital status women had well-being families (62.9%), mostly they had higher education (52.8%) and by social status were workers (20.8%) and employees (49.0%).

4. In women with uterine leiomyoma frequently observed clinical manifestations violations of autonomic homeostasis such as somatoform dysfunction of the autonomic nervous system (66.0%).

рацио профилактики миоми иматки / Л. П. Тихомирор

6. Тихомиров, А.Л.

патогенетическое обоснование профилактики миомы матки / к.л. икомиров,
А.А. Леденкова, А.Е. Батаева // Вопросы гинекологии, акушерства и перинатологии. —
2011. — №1 (10). — C. 75–78.
Tikhomirov, A.L., Ledenkova, A.A., Bataeva, A.E. "Pathogenetic substantiation of prevention of uterine fibroids." Questions of Gynecology, Obstetrics and Perinatology, 1(10) (2011): 75–78.
7. Atlas of health in Europe WHO I EURO (2003): 50–51, 170–179.
8. Hill, C.A., Harris, R.C., Kim, H.J., et al.
"Influence of beta-alanine supplementation on skeletal muscle carnosine concentrations and
high intensity cycling capacity." Amino Acids, 32(2) (2007): 225–233.
9. Захарьян, Е.А.
Нейроциркуляторная дистония — патология соединительного матрикса / Е.А. Захарьян,
В.Ф. Кубышкин, В.А. Ионов // Крымский журнал экспериментальной и клинической
медицины. — 2011. —№ 2 (2), Т. 1. — С. 116.
Zakharian, E.A., Kubyshkin, V.A., Ionov, V.A.
"Neurocirculatory dystonia as a pathology of coupling matrix." Crimean Journal of Experimental
and Clinical Medicine, 2(2), Vol. 2 (2011): 116.
10. Акушерство та гінекологія: У 4 т.: національний підручник /
За ред. акад. НАМН України, проф. В.М. Запорожана // Т. 4. Оперативна гінекологія. —
К.: «Медицина». — 2013. — 1070 с.
National tutorial «Obstetrics and Gynecology» /
Ed. by academic of the NAMS of Ukraine, professor V.M. Zaporozhan. Kyiv. Medicine. Vol. 4 (2013)
1070 р.
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#### CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF FERTILE AGED WOMEN WITH UTERINE LEIOMYOMA, RESIDENTS OF INDUSTRIAL REGION OF UKRAINE

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Results of study provided in population of fertile aged women are showed in the article, clinical and epidemiological characteristics of women with uterine leiomyoma, which are living in the industrial region of Ukraine. Revealed frequency and structure of appearance of uterine leiomyoma and factors, that could lead to uterine leiomyoma.

Thus, the incidence of uterine leiomyoma in fertile aged women at Dniprovskyi district of Kyiv was 5.1% per 1000 women, which is slightly higher than the average according to the official statistics (4.4% per 1000 women).

Keywords: fertile aged women, uterine leiomyoma, risk factors.

#### КЛІНІКО-ЕПІДЕМІОЛОГІЧНА ХАРАКТЕРИСТИКА ЖІНОК ФЕРТИЛЬНОГО ВІКУ З ЛЕЙОМІОМОЮ МАТКИ, МЕШКАНОК ПРОМИСЛОВОГО РЕГІОНУ УКРАЇНИ

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**Вл.В. Подольський**, к. мед. н., керівник наукової групи, старший науковий співробітник, завідувач відділенням проблем здоров'я жінок фертильного віку ІПАГ НАМН України В результаті проведених досліджень у популяції жінок фертильного віку надана клініко-епідеміологічна характеристика жінок із лейоміомою матки, які мешкають у

промисловому регіоні України. З'ясовані частота і структура лейоміоми матки та факторів, що можуть призводити до цього захворювання.

Так, захворюваність на лейоміому матки в жінок фертильного віку Дніпровського району м. Києва склала 5,1% на 1000 жінок, що дещо перевищує середній статистичний офіційний показник (4,4% на 1000 жінок).

Ключові слова: жінки фертильного віку, лейоміома матки, фактори ризику.

КЛИНИКО-ЭПИДЕМИОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА ЖЕНЩИН ФЕРТИЛЬНОГО ВОЗРАСТА С ЛЕЙОМИОМОЙ МАТКИ, ЖИТЕЛЬНИЦ ПРОМЫШЛЕННОГО РЕГИОНА УКРАИНЫ

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**Вл.В. Подольский**, к. мед. н., руководитель научной группы, старший научный сотрудник, заведующий отделением проблем здоровья женщин фертильного возраста ИПАГ НАМН Украины В результате проведенных исследований в популяции женщин фертильного возраста представлена клинико-эпидемиологическая характеристика женщин с лейомиомой матки,

живущих в промышленном регионе Украины. Выяснены частота и структура лейомиомы матки, а также факторов, которые могут приводить к этому заболеванию. Так, заболеваемость лейомиомой матки у женщин фертильного возраста Днепровского района г. Киева составила 5,1% на 1000 женщин, что несколько превышает средний

так, заоолеваемость леиомиомои матки у женщин фертильного возраста днепровского района г. киева составила 5,1% на 1000 женщин, что несколько превышает средний статистический официальный показатель (4,4% на 1000 женщин).

Ключевые слова: женщины фертильного возраста, лейомиома матки, факторы риска.