



Comparative Analysis of the Combined Form of Uterine Fibroids and Adenomyosis in Women Who Had Covid-19 Before the Pandemic and During the Pandemic

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Abstract: In gynecology, uterine myoma and adenomyosis are among the most common diseases. We can observe a significant increase in the detection of uterine myoma and adenomyosis and their complications after the coronavirus pandemic. The study was conducted in the department of gynecology III multidisciplinary clinic TMA for the period 2018 - 2022, the case histories of patients admitted for inpatient treatment for uterine myoma and adenomyosis were studied. A retrospective analysis of pre-covid and post-covid periods was performed. Thus, the results of the study showed that the rate of operative treatment for uterine myoma was 48.4% of all the operations performed during the study period. Over the last 2 years (the pandemic period) there was a 1.3-fold increase in the frequency of radical organ-assisted operations. Frequent complicated forms of myoma and adenomyosis after covid is a cause of bleeding and an indication for the operative treatment.

Key words: uterine myoma, adenomyosis, retrospective analysis, supravaginal amputation, uterine extirpation, myomectomy, COVID 19.

Relevance. In spite of numerous studies, the problems of regulation of the reproductive system and pathogenesis of hormone dependent diseases have not been studied up to date and are difficult and urgent both in scientific and practical medicine [1, 2, 4, 6]. In gynecology, the most common diseases include uterine myoma and adenomyosis. Every year researchers devote their research works to the search of molecular links in the pathogenesis and mechanism of proliferative - hyperplastic uterine diseases such as uterine myoma and adenomyosis [1, 3-18]. Year after year, the rejuvenating age of patients, reproductive failure (often infertility 30-80%), the severity of the disease clinic (prolonged and profuse bleeding with its complications, progressive pain), loss of ability to work, leading to psychological and emotional disorders and make this problem undiminished urgent. Both uterine myoma and adenomyosis are diseases that develop as a result of the impact of various damaging factors on a woman's body against the background of hereditary burden. Currently, a group of researchers confirm that the pathogenesis of uterine myoma is based on abnormalities in the synthesis

and reception of progesterone [1, 5, 6]. In turn, adenomyosis is considered to be an estrogen-dependent disease, characterized by invasion of the glandular and stromal component of the basal layer of the endometrium into the myometrium. In recent years, studies have shown that angiogenesis against the background of increased secretion of some growth factors (GF) plays an important role in the pathogenesis of these diseases. It has been established that only every fourth patient with uterine myoma has increased mitotic activity of myocytes. This proves the rapid growth of myomatous nodules with pronounced clinical manifestations of the disease [2, 3, 4]. Proliferating uterine myoma is characterized by neovascularization with the formation of new vessels of "sinusoidal" type, which lack a muscular sheath and can be detected by echography [5, 6]. A significant increase in the detection of uterine myoma and adenomyosis and their complications can be observed after the coronavirus pandemic. Hypotheses that coronavirus can adversely affect the reproductive system and even lead to infertility have appeared for a long time. However, there was not enough evidence to support this hypothesis. Now there is much more information on how covid affects women's health [5, 7, 8]. Coronavirus can cause lesions of the ovaries and uterus in women, which can lead to the development of reproductive dysfunction. However, only patients who have had a severe form of the virus can face such complications. According to gynecologists, the development of complications depends on the level of immunity. In addition, the above-mentioned disorders of reproductive function are only temporary in nature. It is known that the severe course of coronavirus affects the whole body, so it is not surprising that the disease is reflected in the reproductive function.

Material and methods of the study. Our study was conducted in the department of gynecology III multidisciplinary clinic of Tashkent Medical Academy for the period 2018 - 2022. During the study, case histories of patients admitted for inpatient treatment for uterine myoma and adenomyosis were studied. A retrospective analysis of pre-covid and post-covid periods was performed. We conducted retrospective studies of the history, reproductive function status, clinic, and treatment outcomes of women with uterine myoma and adenomyosis for the periods January 2018 to February 2020 (1-group), and March 2020 to March 2022 (2-group). Overall, 438 case histories of women who underwent surgical treatment for uterine myoma and adenomyosis were studied and divided into 2 groups. Group 1 comprised 176 (40.2%) patients, Group 2 comprised 262 (59.8%) patients. The operative logs and histological findings were also used for the analysis. The results of the study showed that the rate of surgical interventions for myoma and adenomyosis was 3.5 times higher than that of conservative interventions. And also the increase in the detection of the disease in the post-pandemic period was almost 1.4 times higher than before the pandemic. The proportion of different age groups was: 20-29 years - 3.7% (23 patients), mean age was 25.8 ± 0.40 ; 30-39 years - 24.5% (115 patients), mean age was 34.8 ± 0.21 ; 40-45 years - 37.6% (138 patients), mean age was 43 ± 0.16 ; 46 years and above - 34.2% (162 patients), mean age of quarters group was - 54 ± 0.48 . Hence, the most frequent surgical interventions for uterine myoma and adenomyosis were performed at the age over 40 years (71.8%).

Results and discussion. In the Department of Gynecology III of the TMA Clinic, 438 operations (48.4% of all operations) were performed for uterine myoma and adenomyosis between 2018-2022. While surgeries for these conditions accounted for 36.4% during the 2018-2020 period, the surgery rate increased 1.3-fold to 47.5% during the 2020-2022 period after the pandemic. The indications for surgery were mainly the diagnosis of symptomatic uterine myoma, adenomyosis or a combined form of uterine myoma and adenomyosis, with abnormal uterine bleeding being the main symptom in 85% (372), impaired function of adjacent organs due to compression of tumor in 3% (13), myoma of large size in 7% (31), myoma rapid growth syndrome in 5% (22) of patients. This indicates a long duration of the disease, patients' late visit to the doctor, and complications after covid-19. In young women of reproductive age, infertility and uterine myoma were indications for surgery (which became more frequent after the pandemic) - in 6.8%, all of them underwent organ-preserving myomectomy. We also

studied the volume of surgical treatment performed in the patients. Thus, the most frequently performed supravaginal uterine amputation (SAM) was 57.9% (296), followed by uterine extirpation 24.7% (126), of which the vast majority of these operations were accompanied by removal of appendages. Taking into account the age composition of the operated women, we can assume that the radical surgery was also performed taking into account the age of the patients.

An increase in the frequency of organ preserving myomectomy surgery, which amounted to 17.4%, is noteworthy. At the age of 20-29 years old, most often organ preserving myomectomy was performed - 78.9%, the operations were carried out because of myoma and infertility. In 21.1% of the patients, unfortunately, the operations resulted in the loss of the reproductive organ. At the age of 30-39 years more predominated - 54.4%, followed by myomectomy - 42.4%, among them were patients with infertility, for which the organ-preserving operation was performed. Uterine extirpation was performed in 3.2% of the patients. At the age over 40-45 years old, as well as in the 2nd age group, the majority of patients underwent hysterectomy - 71.3%, followed by uterine extirpation - 19.8%, organ preserving surgery was done in 8.9% of the patients. At the age over 45 years old, UUT (49.7%) and hysterectomy (48%) were performed with almost the same frequency. Overall, in women under 40 years of age, 13% of surgeries were organ-preserving, while the rest ended in the loss of a reproductive organ.

Thus, the results of the study showed that the rate of surgical treatment for uterine myoma was 48.4% of all operations performed during the study period. Over the last 2 years (the pandemic period) there was a 1.3-fold increase in the frequency of radical organ-assisted operations. Frequent complicated forms of myoma and adenomyosis after covid is a cause of bleeding and an indication for the operative treatment.

Conclusions. A retrospective analysis of the case histories of women with uterine myoma and adenomyosis showed that women who had undergone COVID-19 were twice as often exposed to complications of these diseases (bleeding and rapid growth of uterine myoma and adenomyosis areas). COVID-19 aggravates the growth of uterine hyperplastic diseases, which leads to the loss of a reproductive organ.

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