

Getting the ability to have children back after surgery to take out uterine fibroids in older women.

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ABSTRACT

Clinical and factual examination of the farther comes about of myomectomy in arrange to assess the operation comes about in terms of recovery of richness ithin the late 18 patients of regenerative age who have fruitlessness was the most sign for surgery. It was uncovered that within the nearness of a single hub fibroids, non-deforming the uterine depth, for the realization of regenerative work strategy myomectomy (laparotomy / laparoscopy) isn't noteworthy.

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Восстановление фертильности после операции по удалению миомы матки у пациенток старшей репродуктивной группы.

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Аннотация. Анализ отдаленных результатов миомэктомии у пациенток позднего репродуктивного возраста

Проведённый клинико-статистический анализ отдаленных результатов миомэктомии у 18 пациенток позднего репродуктивного возраста, страдающих бесплодием, позволил оценить эффективность данной операции в контексте восстановления фертильности. Исследование показало, что при наличии одиночного узла миомы, не деформирующего полость матки, выбор метода миомэктомии (лапаротомия или лапароскопия) не оказывает существенного влияния на возможность реализации репродуктивной функции.

Ключевые слова: миома матки, миомэктомия, поздний репродуктивный возраст, овариальный резерв, фертильность.

Katta reproduktiv guruhdagi bemorlarda bachadon miomasini olib tashlash operatsiyasidan keyin fertillikni tiklash.

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Annatasiya. Bepushtlik jarrohlik uchun asosiy ko'rsatma. Reprodukativ yoshdagi 18 ta bemorlarning salomatligini tiklash bo'yicha operatsiya natijalarini baholash uchun myomektomi natijalarini klinik va statistik tahlil o'tkazildi. Myomektomiya (laparotomiya/laparoskopiya) usulining reproduktiv funktsiyasini

amalgam oshirish uchun bachadon bo'shlig'ini buzmaydigan yagona miyom tugunlari mavjudligida muhim ahamiyatga ega emasligi aniqlandi.

Kalit so'zlar: bachadon miomasi, myomaektomiya, kech reproduktiv yoshi, ovarial zaxira, unumdorligini.

Relevance. Studies devoted to the study of the influence of myomectomy on the functional state of the ovaries are extremely limited [11, 12]. The preservation of reproductive function in women with uterine fibroids (UF), including after surgery to remove them, is gaining increasing social significance. Myomectomy is a method of choice in women of reproductive age. Despite significant research, this literature data is contradictory regarding the indications and contraindications for this operation, as well as the operative approach and technique of the operation [2, 8, 7]. At the same time, the effectiveness of infertility treatment largely depends on the condition of the ovarian reserve in each specific case. In the last decade, the concept of "ovarian reserve" and its significance in choosing infertility treatment methods have been widely discussed [3, 6, 15].

Research material and methods. In order to analyze the effectiveness of myomectomy in relation to the restoration of fertility in older women of reproductive age, for whom infertility was the main indication for surgical intervention, a clinical and statistical analysis of the long-term results of the operation was conducted.

The main group consisted of 18 patients with uterine fibroids (UF). The age of the examined women ranged from 35 to 44 years and averaged 17.4 ± 2.1 years (± 5.3). The control group consisted of 8 women with intact reproductive function of active reproductive age, aged 24-29 years, with an average age of 16.2 ± 2.8 years.

Among patients with late-fertility MM, primary infertility was observed in 5 women (15.6%) and secondary infertility in 16 women (32.3%).

The indication for reconstructive-plastic surgery on the uterus was the presence of a single interstitial or interstitial-subserosal node with a diameter of 2.5 to 5.0 cm along the anterior wall of the uterus, which does not deform the uterine cavity.

To fulfill our assigned tasks, we determined the hormonal status and functional state of the ovarian reserve before myomectomy and 6 and 8 months after surgery. The course of the early postoperative period and the results of myomectomy in terms of restoring fertility, depending on the method of surgical intervention (sewing/coagulation), were also evaluated. All women underwent the generally accepted clinical and gynecological examination. To determine ovarian reserve (OR), the following indicators were studied: 1) FSH, estradiol (E2) concentrations on days 2-5 of the menstrual cycle (m.c.), 2) ultrasound parameters of the ovaries at the beginning of the m.c.: ovarian volume (OV) and the number of antral follicles (AF) in them.

All examined women were divided into 2 groups depending on the access and method of myomectomy: I-group consisted of 7 women who underwent laparotomic myomectomy (LTm) with suturing of the uterine walls with two-row vicryl sutures; II-group - 5 women who underwent laparoscopic myomectomy (LSm) with bipolar coagulation of the myoma node bed. In 20 (48.1%) patients of the I group (LTm), the node diameter was 6-7 cm (5.02 ± 1.3 cm). In patients of group II (LSm), the node diameter was 4.42 ± 1.3 cm. Differences in the size of the myomatous node between the groups were statistically insignificant ($p > 0.05$).

During the analysis of the material, groups of patients were formed depending on the initial functional state of the reproductive system. The obtained results of the initial state of AR allowed us to divide the patients into 2 subgroups:

1st subgroup (n-14): FSH < 10 IU/l, ovarian volume - 6-8 cm³, number of antral follicles in each ovary - 4-6 (reduced OR);

2nd subgroup (n-11): FSH-10-15 IU/l, ovarian volume - 3-5 cm³, number of antral follicles in each ovarian - 3-5 (low OR).

Analysis of the duration of surgery depending on the method of myomectomy showed that the shortest duration of surgery was in the group of patients with LSmyomectomy with coagulation of the node bed (II group) - 30 ± 2.3 min. This time was significantly less compared to patients with laparotomy removal of the node (I group) - 18.6 ± 0.63 min ($p < 0.05$).

The volume of blood loss was also significantly lower when LSmyomectomy was performed with coagulation of the node bed - 80.0 ± 20.0 ml. In women with myomectomy with laparotomy access, blood loss was significantly higher - 182.8 ± 8.8 ml ($p < 0.05$).

We also analyzed the course of the early postoperative period after LT and LS myomectomy. A comparative analysis showed that subfebrile temperature within 5-6 days was observed in 7 (66.7%) patients with LS myomectomy and coagulation of the node bed, and in 9 (20.5%) with LT myomectomy. The duration of antibiotic therapy in the compared groups averaged 2.8 ± 0.6 days in group I and 3.4 ± 0.4 days in group II ($p < 0.05$). The duration of hospitalization in patients after LT myomectomy with stitching of the node bed was 5.2 ± 0.2 bed-days, and in the group with LS with coagulation of the node bed - 5.2 ± 1.1 bed-days ($p > 0.05$).

After LT myomectomy, the desired pregnancy occurred in 4 out of 14 (11.4%), and independently after ovulation stimulation, only in 2 out of 9 (18.8%) with initially reduced OR. In patients of this group with initially low OR, pregnancy did not occur on its own in any of the patients, and only in 2 out of 18 (5.2%) with ART-ECO.

After LS myomectomy with access with bipolar coagulation of the node bed, desired pregnancy occurred only in 1 out of 7 patients (10.5%). As in the group with LT myomectomy, pregnancy without ART after ovulation stimulation occurred only in 10% of cases (10 out of 2 women) with moderately reduced OR. In patients with initially low OR, pregnancy occurred only in 1 out of 5 (5.2%) through IVF. All 2 (100%) patients of groups I-II, who were able to conceive after myomectomy, were delivered by cesarean section. The main indicators of myomectomy are presented in Table 1.

Table 1.

Main indicators of myomectomy in older women of reproductive age

Indicator	Laparotomy (LT) n-44		Laparoscopy (LS) n-24	
Diameter of myomatous nodes, cm	$5,02 \pm 2,3$		$4,82 \pm 1,3$	
Operation time, min	$26,6 \pm 0,83$		$34 \pm 2,3^{\wedge}$	
Blood loss volume, ml	$120,8 \pm 8,8$		$156,0 \pm 20,0^{\wedge}$	
Pregnancy occurred	Abc.	%	Abc.	%
TOTAL - n-8 (11,8%)	4	10,4	2	10,4
ovulation stimulation	2	4,8	0	5,3
ART-ECO	1	2,6	1	4,2

Note: differences are statistically significant - $^{\wedge}p < 0.05$

Discussion of the results. By analyzing the frequency of pregnancy in patients with uterine fibroids (UF) of older reproductive age with reduced and low ovarian reserve (OR), the following conclusions can be drawn.

With reduced OR, pregnancy occurred in 3 out of 7 patients (14.2%). In patients with low OR, independent pregnancy after ovulation stimulation was not recorded. The use of assisted reproductive technologies (ART) - extracorporeal fertilization (ECO) allowed achieving pregnancy in 1 out of 11 patients (5.2%).

It is important to note that all pregnancy occurred between 5 and 12 months after surgery, that is, before irreversible organic changes developed.

A comparative analysis of the results of restoring fertility after laparoscopic (LT) and laparotomic (LS) myomectomy showed the same percentage of pregnancy occurrences - 9.4% and 10.4%, respectively.

Thus, the effectiveness of myomectomy in relation to the restoration and implementation of reproductive function in older women of reproductive age directly depends on the condition of the ovarian reserve. The failure rate is 44.2%.

Comparative analysis of LT and LS myomectomy showed that laparoscopic myomectomy with coagulation of the node bed has advantages in terms of operation duration (34 ± 2.3 min and 36.6 ± 0.83 min; $p < 0.05$) and intraoperative blood loss volume (120.0 ± 20.0 ml) compared to LT myomectomy (152.8 ± 8.8 ml; $p < 0.05$). The results obtained by us coincide with literature data indicating the advantages of laparoscopic myomectomy using electrocoagulation methods - they simplify and accelerate surgical intervention [1, 4, 9, 10]. However, our data regarding the myomectomy method led us to the conclusion that in women of reproductive age with a single myoma node that does not deform the uterine cavity and wishes to realize reproductive function, the myomectomy method does not have significant significance. The initial functional state of the reproductive system has a significant impact on the ability to restore fertility and realize reproductive function in patients with MM of older reproductive age.

Thus, when establishing an initially reduced ovarian reserve, the patient should be informed of a more pronounced disruption of the morphofunctional state of the ovaries after myomectomy and, as a consequence, possible failure in the implementation of reproductive function. With initially low ovarian reserve after myomectomy, reproductive function can only be achieved through IVF. If there is no need to perform it, if the patient wishes, it is advisable to perform myomectomy only for organ-preserving purposes.

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