CME LIVE OPEN ACCESS

Journal of Clinical Anesthesia and Research

Research Article

Practical Using A Mix of Physical Rehabilitation After Hysterectomy of Patients Reproductive Age

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Received: 2023 Aug 16 **Accepted:** 2023 Sep 05 **Published:** 2023 Sep 14

Abstract

In this article demonstrated the results of the study of the practical usage of complex methods of physical rehabilitation for patients of reproductive age, after suffering a hysterectomy, the produced different operative techniques. Peculiarities of rehabilitation methods after different ways to remove the uterus. Practical recommendations for rehabilitation.

Keywords: Patient, Reproductive Age, Hysterectomy, Laparotomy, Laparoscopy, Physical Rehabilitation, Kegel Exercises

1. Introduction

To date, the problem of rehabilitation of gynecological patients who have undergone surgical removal of the uterus is particularly acute. According to official statistics, women of reproductive age undergo hysterectomy in 85–90% [1-9]. In most countries of the world, the most frequent gynecological operations are supramarginal amputation and hysterectomy [subtotal and total hysterectomy]. In Sweden, hysterectomy accounts for 38% of abdominal gynecological operations, in the USA 36%, in the UK - 25% [1,9]. In Ukraine, up to 90% of hysterectomies in reproductive age are performed for benign tumors of the uterus [6, 9].

Removal of the uterus is the most common intervention in operative gynecological practice, the frequency of this operation ranges from 25% to 38% [1, 6, 9]. The frequency of hysterectomy operations, with or without removal of the uterine appendages, is the highest in the world among all gynecological surgical interventions [1, 9]. The average age at which women undergo this operation due to gynecological diseases is 40.5 years, due to obstetric complications - up to 35 years [1, 6]. The medical, social, and psychological aspects of hysterectomy in women of reproductive age have not yet been adequately studied. [1, 4, 8]. When using physical rehabilitation after gynecological operations, this issue is covered, according to a number of researchers, to an extremely insufficient extent [1, 3, 6].

All this dictates the need for active study of the consequences of hysterectomy in women of reproductive age. To overcome them, more active use of methods and means of physical rehabilitation is relevant, such as therapeutic exercises, special Kegel exercises, fitball, methods and means of physiotherapy, reflexology, various types of massage [2, 3, 5, 10]. Before proceeding to the discussion of the materials of our study, I consider it necessary to reflect the features of hysterectomy operations. In our opinion, this is directly related to the methods and means of physical rehabilitation used in the postoperative period, at all stages of rehabilitation.

A hysterectomy is a surgical intervention in which the uterus is removed [1, 6]. Removal of the uterus changes the anatomical and functional relationships of the pelvic organs and the architectonics of the vaginal vaults, which is very important during postoperative rehabilitation [1, 3, 6]. Removal of the uterus is usually performed when uterine tumors are detected and in cases where other methods of treating uterine diseases are ineffective. [1, 6]. The decision on the method of the operation is made by the attending physician, considering the form and stage of the patient's disease, her

condition, age and other factors. There are various types of hysterectomy, differing in the amount of tissue removed and the technique of carrying out [1, 6, 9].

An open [laparotomic] hysterectomy is the removal of the uterus through an open incision in the anterior abdominal wall. An incision in the lower abdomen is used to access the uterus. This method of operation is good in that all organs are perfectly surveyed, it is possible to determine the state of nearby tissues [1, 7, 9]. With this type of operation, a radical hysterectomy is most often performed, in which the surgeon removes the patient's uterus, adjacent tissues [ligaments and lymph nodes that used to support the organ], as well as the upper third of the vagina. The fallopian tubes and ovaries are usually preserved. At the same time, the topography of the pelvic organs changes significantly, which can negatively affect the functioning of the bladder and intestines. Because the ligaments have been removed, the pelvic floor muscles often become weak and unable to adequately support the vagina. To prevent possible postoperative complications, after removal of the uterus, patients should perform therapeutic exercises and Kegel exercises, fitball exercises aimed at strengthening the muscles of the pelvic floor [2, 5, 10].

Laparoscopic hysterectomy is the least traumatic way to perform this operation. Removal of the uterus is performed using special laparoscopic devices-manipulators. The use of laparoscopy minimizes the risk of complications and damage to neighboring organs [1, 7, 9]. The recovery of patients after removal of the uterus by laparoscopic method takes less time and is much easier than the rehabilitation of a patient who had an open hysterectomy. With this type of operation, hospital stay is limited to a period of 3-4 days. Rehabilitation requires from 2 to 4 weeks of an active recovery period, with the individual use of various means and methods of physical rehabilitation [1, 7, 9].

A vaginal hysterectomy is the safest and most cost-effective way to remove the uterus. This is stated in order No. 582 of the Ministry of Health of Ukraine [6, 1, 9]. The length of stay in the hospital after this type of operation [from 2 to 4 days] and the duration of postoperative rehabilitation [2–3 weeks] will be minimal here [1, 6, 9].

1.1. Aim of the Work

The purpose of the study is to develop principles and evaluate the impact of the proposed program of physical rehabilitation in patients after hysterectomy performed by different approaches in order to maintain their health and improve the quality of life.

2. Object, Material and Methods of Research, and Organization of the Study

The study and practical application of a complex of physical rehabilitation methods was carried out for 3 months, 2022, on the basis of the gynecological department and antenatal clinic of the communal institution "Novokakhovskaya Central City Hospital", Kherson region. The patients were divided into three groups. The first group consisted of patients after supravaginal amputation of the uterus by laparotomy [n=4], the second group-patients after laparoscopic removal of the uterus [n=5]. The third group included patients in whom hysterectomy was performed by vaginal access [n=4]. The study involved 13 patients, aged 26 to 42 years. The average age of the patients who took part in the study was 30.59+0.23 years. All patients are married and have 1 to 3 children.

3. Results of the study and discussion

The main task of the rehabilitation of women after hysterectomy is to support the functional state of the female body for its speedy adaptation and normalization of the functions of all organs and systems in the postoperative period [1, 6, 8]. However, to date there is no single developed tactics for the use of methods and means of physical rehabilitation in gynecological patients after hysterectomy. These facts served as the basis for us to conduct such a study and attempt to develop an approximate set of means and methods of physical rehabilitation in patients of reproductive age who underwent surgical removal of the uterus.

The duration of existing uterine diseases in the study group is 3–6 years, on average 4.8±0.4 years. 8 patients [61.54%] had a combination of subserous and submucosal myomas [with profuse bleeding], 2 [15.39%] had submucosal myoma nodes with metromenorrhagia, 1 patient [7.69%] was diagnosed with multiple subserous myomas. myomatous nodes, a significant increase in the size of the uterus. In all 13 patients, conservative treatment for 3-6 years did not bring improvement. All surgeries were planned. The patients underwent all the necessary general clinical examination, ultrasound diagnostics, gynecological examination, laboratory diagnostics. Preoperative preparation included psycho-prophylactic preparation, with an explanation to the patients of the features of the choice of surgical intervention, possible immediate and long-term complications and consequences of the operation, the features of the course of the early and late postoperative periods. Particular attention during psych prophylactic preparation was paid to the peculiarities of sexual life and the performance of physical activity in the postoperative period [4, 8].

In the early postoperative period, the attention of patients was focused on detailing the methods and means of physical rehabilitation, both in the hospital for the entire period of stay in it, and in the therapeutic gymnastics room of the antenatal clinic, and at home [3, 5]. In all three groups, in the postoperative period, in a hospital, and later in the antenatal clinic, within 30-45 days after the operations, we used a complex of individual methods and means of physical rehabilitation. Features of the exercises used in the postoperative period were due to the technique of performing hysterectomy, as well as the individual course of the postoperative period. 24-36 hours after the operation, the patient began to get up and walk. Before the operation itself and before

getting out of bed, in order to prevent thromboembolism, all patients had their legs bandaged with elastic bandages; after discharge, compression underwear should be worn for 1.5–2 months [3, 5]. After abdominal intervention, the patient spends 6-8 days in the hospital, then they needed up to 6-8 weeks of active rehabilitation [3].

In the early postoperative period, for patients with hysterectomy, the starting position for performing physical exercises is a forced supine position [3, 5]. The complex of physical exercises of the early postoperative period, in all 3 groups, consisted mainly of breathing exercises of a static and dynamic nature, as well as exercises for the distal sections of the upper and lower extremities, exercises with the pronunciation of hissing sounds, prolonged exhalation [3, 5]. The movements of the lower extremities were carried out in turn, without taking the feet off the bed. Patients with vaginal hysterectomy, on the 1st day after the operation, were advised to leave their legs together. From day 2, they could be bent at the knee joints, but not spread, and also turned in bed with legs brought together. These patients were allowed to get out of bed only from the prone position [3, 5]. Patients after laparotomic hysterectomies are not allowed to strain the abdominal muscles in the first 1-2 days after the operation. After being allowed to stand up, usually after 24-36 hours, the patients performed therapeutic exercises while sitting on a chair [3, 5].

After discharge from the gynecological hospital, in the absence of postoperative complications and contraindications, the patients of the three groups participating in the study were offered individual complexes of physical rehabilitation methods for a period of 1.5–2 months. The duration of this set of special exercises was 35–40 minutes. It was performed every day in the morning. Also, the patients three times a week independently, at home, performed the exercises recommended considering their individual characteristics and well-being. For the first 2 weeks, the patients mastered and performed the rehabilitation complexes proposed by them in the conditions of the antenatal clinic's exercise therapy room. In the next 2–4 weeks, the patients performed the proposed rehabilitation techniques at home.

Group 1 patients were offered a complex of physical rehabilitation, which included exercise therapy and fitball. Physiotherapy exercises were offered to improve the blood supply to the pelvic organs, strengthen the musculoskeletal apparatus of the pelvic floor and restore disturbed topographic and anatomical relationships of the pelvic organs according to the method of D. N. Atabekov and K. N. Pribylova, in the modification of F. A. Yunusov [3, 5]. In the second group of patients, after laparoscopic removal of the uterus, exercise therapy was used [a set of special exercises for the muscles of the abdomen and pelvic floor, according to the method of Vasilyeva V. E [3, 5]. Special Kegel exercises according to the standard method [2, 10]. In the third group of patients, after vaginal hysterectomy, pelvic floor muscle training was used, using special Kegel exercises, therapeutic exercises in the form of exercises in isotonic and isometric modes according to the method of V. A. Epifanov fitball [3, 5, 10].

Also, after 3 months of physical rehabilitation, a survey of patients of all 3 groups was conducted. According to the data obtained, after laparotomy, libido did not change in 63.2% of women, after laparoscopy - in 69.5%, with vaginal access - in 76.8%, satisfaction with sexual life - respectively in 60.1%, 62. 4% and 64.3% of patients. Sexual life was restored, on average, after 2-3 months in 11 patients [84.62%] - 2 patients after laparotomy, and all after laparoscopic and vaginal operations, and in 2 [15.38%], after laparotomic hysteroscopy, in within six months after the operation.

The frequency of sexual intercourse remained the same in 62.2% of patients in the first group, 75% in the second and 80.1% in the third group. The ability to work in all patients, according to the questionnaire data, recovered 1-1.5 months after the operation and did not depend on the method of its implementation. The quality of life improved, compared with the preoperative level, 2–3 months after surgical treatment, primarily in patients in whom hysterectomy was performed by vaginal access and laparoscopically. These data practically correspond to the available literature data [4,5,8]. The prospect for further research in this direction is to study the psychological status and quality of life of patients in a more remote period after a hysterectomy [6 months, 1-2 years, 3-5 years], considering their performance and sexual life.

4. Conclusions

These studies have shown that the proposed differentiated rehabilitation program for patients who underwent hysterectomy, using various surgical methods, can be used as a baseline for physical rehabilitation in patients after hysterectomy.

In order to improve the quality of life of patients after a hysterectomy, both in the early and late postoperative periods, they, without fail, must undergo not only a course of rehabilitation measures and rehabilitation treatment, but also a spa treatment, in a specialized sanatorium.

References

1. Dobrokhotova YE. Hysterectomy in the reproductive age (systemic changes in a woman's body, and methods of their correction): Abstract. dis. dr. med. science / Y.E. Dobrokhotova. Moskow. 2000. 40 p.
2. Kalashnikov A.S. Kegel exercises. Cheboksary. 2014. 38 p.
3. Kuldenbaeva SA Medical rehabilitation of women of reproductive age after hysterectomy. Abstract dis. The candidate of medical sciences // Bishkek. 2006. 25 p.
4. Melnikov S.M. Considering the state of sexual health of women in the complex rehabilitation after hysterectomy // Scientific journal "Pediatrics, Obstetrics and Gynecology." 2007. 6:84-87.
5. Peresada OA. Complex rehabilitation after gynecological operations // Scientific journal "Medical News". Minsk:

YupoKomInfoMed. 2007. 2:28-34.
6. Rud OV. Clinical aspects of reproductive age hysterectomy // Scientific journal "Pediatrics, Obstetrics and Gynecology." 2007. 2:82-83.
7. Savelieva GM., SV. Styrov, AV. Tumar et al. Comparative evaluation of laparoscopic hysterectomy and laparotomncheskogo method // In: Endoscopy in the diagnosis and treatment of uterine pathology. Moskow. 2007. Pp. 381-382.
8. Stepanovichus EN. Features of mental and emotional state of patients after hysterectomy depending on surgical approach // Herald SMU. 2006. 2:49-52.
9. Yuzko OM., TA. Laptev, SP. Field Laparoscopic operative Gynecology and hysteroscopy: Part I. Ministry of Health of Ukraine recommended as a textbook for students of III-IV accreditation. Chernivtsi: Medical Academy. 2002. 92 p.
10. Perry JD., JD. Ostomy, LT. Hullet the role of home trainers in Kegel's Exercise Program for the treatment of incontinence // Wound Management. 1990. – № 30. 51 p.