



EVALUATION OF THE PATIENTS' QUALITY OF LIFE AFTER HYSTERECTOMY

E. Isakidi*

University of Georgia, School of Health Sciences, Tbilisi, Georgia. *Corresponding Author

O. Vasadze

University of Georgia, School of Health Sciences, Tbilisi, Georgia.

KEYWORDS :

There is no doubt that maintenance or improvement of the quality of life related to the health or disease is a main goal of relationship between the doctor and the patient. Taking into consideration this issue it draws the attention not only to the physical aspects of disease, but also how the patients perceive their diseases.

The impact of gynecological interventions plays a huge role in the patient's quality of life. Quality of life is defined as an individual ability of functioning in the society, complex of the physical, emotional, mental and intellectual characteristics of the person. Interference can be of various scales, from small manipulations, to operations carried out with vital indications. The purpose of this study is to determine what impact the gynecological interventions have on the patient's quality of life. In this regard the problematic aspects of the issue will be studied and analyzed, and this subsequently will make an important contribution to the improvement of the treatment management process (Cavcasushealth.ug.edu.ge; Impact of Gynecological Interventions of the Patient's Quality of Life). [1]

During the last 40 years, gynecological diseases that require surgical intervention in the women of early and late reproductive age are constantly growing. Determination of the quality of life before and after the hysterectomy intervention is one of the parts of this study.

The hysterectomy is one of the most often gynecological operations in most of the countries all over the world. About 600 thousand hysterectomies are carried out every year in the USA. Based on the American statistics we can say that every third woman older than 60 has not the uterus [4], this number is 72 000 in France, and up to 80 000 in the UK. Hysterectomy is a treatment method for many benign and malignant gynecological diseases, which is also successfully used in Georgia. 90% of hysterectomies of reproductive age in Georgia are carried out in case of benign diseases.

After resection of uterus, with preservation of the one or both ovaries, a difficult "specific symptomatic complexes arise, which consist of specific emotional, neurovegetative, sexual, urogenital, vascular and other estrogen deficient condition", it is considered as posthysterectomy syndrome. [14]

After the hysterectomy, various changes in hormonal homeostasis occur, including changes in the functional state of the ovary. An important role has a decrease in ovarian microcirculation and acute ischemia, these degenerative and atrophic processes lead to ovulatory and hormonal dysfunction.

There are two opposite views on what affects to the function of the ovaries the hysterectomy has. [7 21 17] Most of the authors prove early decrease of ovarian function after the hysterectomy, but there are no certain data on time and frequency of the hormonal failure in the literature. [12] Excision of the uterus leads to a violation of blood circulation in the blood vessels of the ovaries. It should also be noted that complete ischemia of the ovary occurs even after subtotal hysterectomy.

Any surgical intervention to the organs of the pelvic cavity leads to hormonal homeostasis disorders for both - the pituitary and steroid hormone levels, as growth of FSH, LH and reduction of estradiol and progesterone [20]. Also it should be noted that estradiol and progesterone decrease only during the first 48-72 hours after the operation, that is caused by the acute ischemia of the blood circulation

and a tissue swelling caused by surgical trauma. [20]. After 2-4 years from the uterus amputation for the women of reproductive age the ovary structure is similar to postmenopausal period. These results are obtained using various clinical and laboratory-instrumental research methods. The failure of women ovarian function occurs after 3 years following the hysterectomy, while one part of scientists believes that it occurs earlier. [21]

The level of steroid hormones is normalized after 6-12 months. Also it should be noted that ovarian failure develops after one-sided ovariectomy or ovary-sided hysterectomy, while the women's group after hysterectomy with opening of the abdominal cavity has such disorders only in 2% after one year from the operation and in 14% after five years from the operation. [17]

Most of the hysterectomies are done in order to raise the quality of life; however, this intervention can cause postoperative long-term problems like, for example, depression, sexual dysfunction as well as urinary incontinence.

The quality of life, as we have already noted, is one of the important issues after the hysterectomy, which predispose to sexual function, postoperative pain and depression. It should also be noted that the term "sexual function" in the context of this review is used as the results of common descriptive term, based on and non-established by tools. This includes sexual activity and sexual function. According to the review carried out in the past decade, based on the general somatic conditions, the hysterectomy carried out in order to deduct the symptoms improves a woman's sexual function and their quality of life. [18]

Several Randomized Controlled Trials (RCT) were published in the last decade in terms of the topic - hysterectomy including a sexual function, including a Cochrane review [18 2 17], another challenging factor in a woman's sexual function is a multidimensional character, especially with the age. The relationship, social and cultural aspects along with the biological and psychological factors have a great impact to the women's sexual function and their well-being. It should also be noted that after hysterectomy and after cessation of reproductive ability, the absence of sexual intercourse increases the depression risk, also affects a woman's mind, social life, and partnership relations.

Studies carried out after the hysterectomy confirm presence of sexual anxiety in the patients. Some studies say that sexual problems and partner's anxiety are reduced after the hysterectomy, and quality of life is improved. [6] Also in some studies it is said that such operations do not have impact to the sexual functions of women. [5] Most of the recent studies are retrospective and short and long-term impact of the hysterectomy on sexual function, and depression level is still not exactly known. [5]

According to the study carried out, which included the pre- and post-operation periods, the depression rate was detected in the lower age group and depression rate in the women of age 51-60 was significantly reduced. [6] The study pays attention to the woman's sexual dysfunction and depression arising during hysterectomy. The study says that the patients and their partners should be clearly explained the operation and its potential results. [10] As the studies carried out show, the hysterectomy significantly reduces the risk of ovarian cancer. The deficiency of the estrogens can have more harmful impact on a woman's health. [17] The evidences show that a benign neoplasm hysterectomy has a beneficial effect on sexual function, and general

well-being despite the surgical technique applied. Approximately 10-20% of women may experience deterioration in sexual function, for example, dyspareunia or altered orgasm experience.

Hysterectomy avoids the patients of bleeding problems, coital pain, and contraception-related problems, which may contribute to the better quality of life and sexual function. [12] A scientific study "The Effect of Hysterectomy on the Sexual Function of Women: A Narrative Overview" was published on the sexual function of women and the effectiveness of hysterectomy. The study covers the positive and negative impacts of hysterectomy on the women's sexual function. The study for influence of the hysterectomy on women's sexual function in the postoperative period was carried out. According to this study the majority of sexual disorder is improved after the hysterectomy, and most of the patients, which were sexually active before the operation, had the same or better sexual functioning after the operation. This study revealed that the sexual life of the patients was significantly improved after the operation, causing also a positive impact on patients' quality of life. [12]

Also an important issue is the impact of hysterectomy on the functioning of the ovaries. It was studied what hysterectomy has effect on ovarian functioning by preservation of the ovaries. [17] The study "The Effect of Hysterectomy on Ovarian Function, with Preservation of Ovaries" was carried out, on the basis of this study it was revealed that the hysterectomy causes a risk of early ovarian failure [17] The quantitative phase of the study showed that the women with ovarian cancer have lower quality of life and a higher rates of sexual dysfunctions and sexual distress in comparison with general published norms for population. [6] However, it should also be noted that the main goal of the above-mentioned study is the evaluation of the quality of life and sexual functioning of the patients after the hysterectomy. The goal of the study is also to study the ovarian morphofunctional condition after the hysterectomy, what affects a woman's quality of life and their sexual health. [6]

This study explains that the hysterectomy has an ability to solve a physical problem, such as chronic pelvic pain, diparesis, hypermenorrhea or abnormal bleeding of the uterus. When a woman's physical health was improved, her psychological status, social relationships and respect to environment were also improved.

MATERIALANDMETHODS:

The prospective, retrospective (* ?) study was carried out in the following clinics: Medical Center INOVA, Medinvestment LLC, Chachua Medical Center MZERA, in order to evaluate the quality of life in postoperative period after the hysterectomy. The quality of life of the patients was evaluated in the pre-hysterectomy and post-hysterectomy period. The instrument used in the study is a questionnaire called WHOQOL-BREF provided by the world organization. The questionnaire is accompanied by the purpose of the study, the method of the interviewing and a written consent for the participation. After acquaintance, the respondents signed a written consent and filled the questionnaire. The interview was carried out before operation and 4 weeks after the operation. The age of the participating women met the established criteria - from 18 to 65.

Information received from the questionnaire includes the following: age, education, information on sexual life, information on the operation type (total, subtotal), duties, physical pain factors during the performance of duties.

Data entry and statistical analysis was carried out using the statistical program SPSS 23.0.

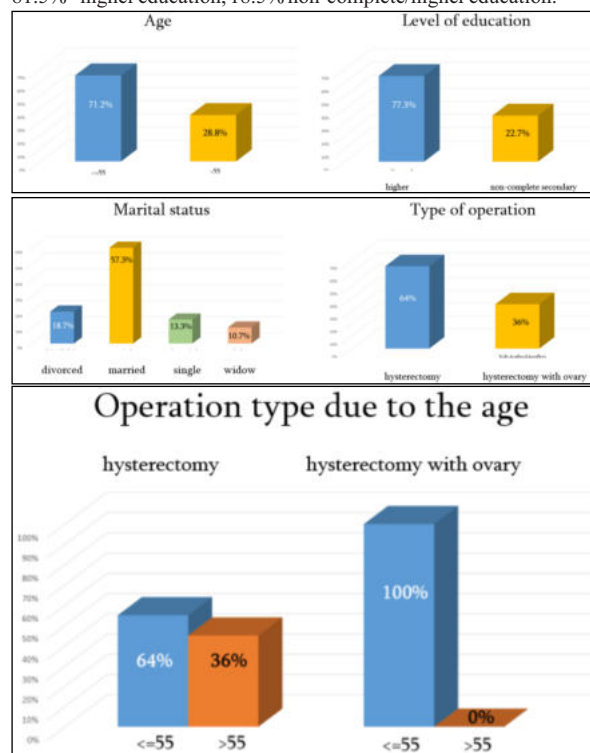
Statistic testing due to the qualitative variables was carried out using the Pearson's chi-square method; Loyalty Index (p), which was less than 0.05 ($p < 0.05$) was considered as statistically loyal.

RESULTSANDDISCUSSION:

165 patients were studied during the study. 71% of them was age group 30-55, 28% was age group 55- 60 (see Diagram No1). 77.3% of 165 patients studied have a higher education, 22,7% - secondary and non-complete secondary education (see Diagram No2). 57.3% of these patients are married, 18,7% - divorced, 13.3% - single, 10.7% - widow (see Diagram No3); 64% has hysterectomy without appendages and 36% - hysterectomy with appendages (see Diagram No4); types of operations by age were as follows: in 64% of the patients under 55 the hysterectomy was carried out with preservation of the appendages, in

36% - with appendages. The hysterectomy with appendages in the patients older than 55 is 100 % ($p < 0,0001$) (see Diagram No5).

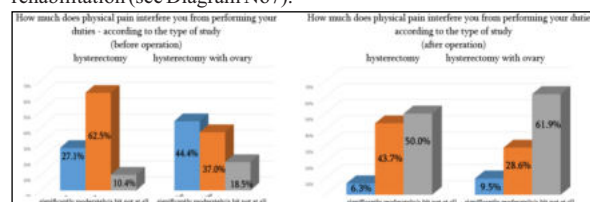
Including hysterectomy - 64% \leq age 55, 36% - $>$ age 55, hysterectomy with ovary 100% \leq age 55. One of the important hysterectomies among the components of quality of life - 64% \leq age 55, 36% - $>$ age 55, hysterectomy with ovary 100% \leq age 55. Type of operation by education level - hysterectomy: 75% - higher education, 25% - non-complete/higher education, hysterectomy with ovary: 81.5% - higher education, 18.5% non-complete/higher education.



#1. Impact Of The Physical Pain During The Performance Of Duties Due To The Study Types Before And After The Operation.

In order to establish the quality of life it was considered as reasonable to establish how much the physical pain of patients interfere the performance their duties. This issue was studied according to the type of study before and after operation. The results received from interviewing of the patients before the operation are as follows: 27.1% - significantly, 62.5% - moderately/a bit, 10.4% - not at all. The hysterectomy with appendages: 44% - significantly, 37.0% - moderately/a bit, 18% - not at all. The study revealed that the physical pain interferes the performance of the duties to the patients who needed a hysterectomy appendages and relatively less patients with appendages preservation (see Diagram No6).

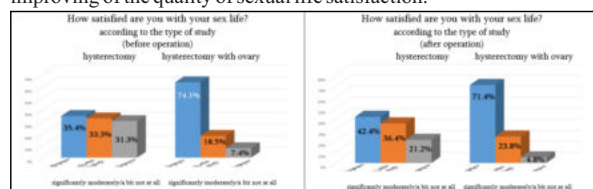
The results of the post-operative interviewing were substantially altered. The women interviewed were less interfered in their performance of the duties by physical pain. 50% of patients who underwent the hysterectomy intervention said they no longer felt physical pain at all during the performance of their duties. In case of a total hysterectomy the data with the higher rate revealed, 61.9% of the women interviewed said that physical pain generally not disturb them in everyday life. The postoperative quality of life improvement indicators were revealed in the patients with total hysterectomy, their age group is ≤ 55 , which contributed to the postoperative rehabilitation (see Diagram No7).



Sexual life satisfaction due to the type of study before and after the operation

Aspects of quality of life also include the degree of satisfaction with sexual life. Two groups were evaluated, according to the gynecological interventions (hysterectomy with appendages and without appendages). Their responses also were compared before and after the operation. Before the operation 35.4% of the patients interviewed expressed the sexual life satisfaction (very much), in the second group - hysterectomy with appendages, 74.1% of the patients expressed the sexual life satisfaction before the operation. Also great is the difference between the dissatisfaction in the first group of the patients, 31.3% of the patients were dissatisfied, while in the second group (hysterectomy with appendages) 7.4% of the patients were very dissatisfied with their sexual life quality (see Diagram No 8) The study revealed that the sexual life satisfaction is higher in the patients of the second group.

In the frame of the study the patients of the first and a second groups (hysterectomy and hysterectomy with ovary) were interviewed after the operation. The result is as follows: 42,4% of the patients were very satisfied in the first group; 21,2% of the patients were very dissatisfied; 33,3% - neither satisfied nor dissatisfied. In the second group, 71,4% of the patients were very satisfied; 4,8% - were very dissatisfied; 23,8% - neither satisfied nor dissatisfied. According to the interviewing of the patients after the operation data were altered, number of the patients very satisfied with their sexual life was increased by 7%, and dissatisfaction level was decreased for 10,1%; number of the patients neither satisfied nor dissatisfied with their sexual life quality after the operation was increased by 3,1%. As for the other group (hysterectomy with ovary) data, according to the interviewing of the patients after the operation number of the patients very satisfied with their sexual life was decreased by 2,7%, dissatisfaction with the sexual life quality was also decreased by 2,6%; number of the women neither satisfied nor dissatisfied was increased by 5,3%. (see Diagram No9). In comparison we can say that results of the hysterectomy with ovary are significantly less than in the first group. The results showed that in aspects of the quality of life, women have undergone an important improvement in their sexual activity in post-hysterectomy period. It was revealed in improving of the quality of sexual life satisfaction.



CONCLUSION

1. Unfortunately, only a limited number of studies are aimed to the final goal of the medical intervention, such may be the postoperative period, in order to study the health-related quality of life. This type of studies requires to use methods approved for the evaluation of the quality of life, which made possible to evaluate the patients' quality of life, that is a final goal of the medical interventions;

2. Maintenance or improvement of the quality of life is the final goal of the relations between the doctor and the patient. The influence of gynecological intervention has a huge role in the patient's quality of life. Women's health problem is not only of a medical, but also of a great socio-demographic and economic importance;

3. According to the results of this study it can be explained that the young women still had a better physical health and environment than the older ones. They perfectly perceived their physical strength, psychological state, social relations and environment after the operation. Therefore, changes to the patient's quality of life during this type of intervention, are based on the above-mentioned factors.

ბიბლიოგრაფია

REFERENCES

- გინეკოლოგიური ჩარევების გავლენა, პაციენტების ცხოვრების ხარისხზე (ქართულად და ინგლისურად) ეკატერინე ისაკიდი. Volume 4, Supplement 6, Oct 26, 2020) Cavcasushealth.ug.edu.ge (ნანახია: 10.11.2020)
- Andersen L, Zolbe V, Ottesen B, et al. Five-year follow up of a randomised controlled trial comparing subtotal with total abdominal hysterectomy. BJOG. 2014;11(10):1471-0528
- Dietl J, Wischhusen J, Häusler S.F.M. The postreproductive fallopian tube: better removed? Human Reproduction. 2011. V. 26, № 11. P. 2918-2924.
- Flory N, Bissonette F, Binik YM. Psychosocial effects of hysterectomy, literature review. J Psychosom Res. 2005;59(3):117-129
- Falcone T, Walters MD. Hysterectomy for benign disease. Obstet Gynecol. 2008;111(3):753-767 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485298/#ref12> (ნანახია: 10.11.2020)
- Fischer O.J., Marguerie M., Broto L.A., „Sexual Function, Quality of Life, and

- Experiences of Women with Ovarian Cancer: A Mixed-Methods Study“ Sex Med 2019; Dec;7(4):530-539, <https://pubmed.ncbi.nlm.nih.gov/31501030/> (ნანახია: 10.11.2020)
- Goktas S., Gun I., Yildiz T., Sakar M., Caglayan S., „The effect of total hysterectomy on sexual function and depression“ Pak J Med Sci. 2015 May-Jun; 31(3): 700-70
 - Gibson C.J., Joffe H., Bromberger J.T., Thurston R.C., Lewis T.T., Khalil N., Matthews K.A., „Mood Symptoms After Natural Menopause and Hysterectomy With and Without Bilateral Oophorectomy Among Women in Midlife“ Obstet Gynecol. 2012 May; 119(5): 935-941. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3339661/> (ნანახია: 11.11.2020)
 - Hoffman R.L., Pinas L., „Effects of Hysterectomy on Sexual Function“ Curr Sex Health Rep. 2014; 6(4): 244-251. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4431708/#CR2> (ნანახია: 10.11.2020)
 - Huang G, Basaria S, Travison TG, et al. Testosterone dose-response relationships in hysterectomized women with or without oophorectomy: effects on sexual function, body composition, muscle performance and physical function in a randomized trial. Menopause. 2014;21(6):612-623
 - Jensen PT, Groenvold M, Klee MC, Thranov I, Petersen MA, Machin D. Early-stage cervical carcinoma, radical hysterectomy, and sexual function. Cancer. 2004 <https://pubmed.ncbi.nlm.nih.gov/14692029/> (ნანახია: 10.11.2020)
 - Kuppermann M, Learman LA, Schembri M, et al. Predictors of hysterectomy use and satisfaction. Obstet Gynecol. 2010;115(3):543-551. doi: 10.1097/AOG.0b013e3181c46a00 (ნანახია: 10.11.2020)
 - Lethaby A, Mukhopadhyay A, Naik R. Total versus subtotal hysterectomy for benign gynaecological conditions. Cochrane Database Syst Rev. 2012
 - Moorman P.G., Myers E.R., Schildkraut J.M., Iversen E.S., Wang F., Warren N., „Effect of Hysterectomy With Ovarian Preservation on Ovarian Function“ Obstet Gynecol. 2011 Dec; 118(6): 1271-1279. https://journals.lww.com/greenjournal/Fulltext/2011/12000/Effect_of_Hysterectomy_With_Ovarian_Preservation.10.aspx (ნანახია: 10.11.2020).
 - Nahás E.A.P., Pontes A., Nahas-Neto J. et al. Effect of Total Abdominal Hysterectomy on Ovarian Blood Supply in Women of Reproductive Age // J. Ultrasound. Med. 2005. V. 24. P.169-174
 - Read M.D., Edey K.A., Hapeshi J. et al. The age of ovarian failure following premenopausal hysterectomy with ovarian conservation // Menopause Int. 2010. V. 16, no. 2. P. 56-59
 - Seffah JD, Kwame-Aryee RA, Adanu RM, et al. Indications for gynecologic surgery and their implications for sexual function in menopausal women. Int J Gynaecol Obstet. 2008
 - Stewart E.A., Shuster L.T., Rocca W.A. Reassessing Hysterectomy // Minnesota Medicine. 2012. V. 95, № 3. P. 36.
 - Торчинов А.М., Умаханова М.М., Боклагова Ю.В. Исследование гормонального профиля у больных после гинекологических операций // Акушерство и гинекология. 2012. № 1. С. 80-87
 - Фатеева А., „Клинические и морфологические аспекты изменений яичников после гистерэктомии (клинико-экспериментальное исследование)“ диссертации, Томск:2017 С.87