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RESEARCH ARTICLE

The Evaluation Of Dysmenorrhea, Quality Of Life, And Sexual Functions In Patients With And Without Conization

Belma Gozde Ozdemir,[1] Ahmet Bilgi,[1] Kubra Sevinc,[1] Asli Mavi,[1] Mehmet Kulhan,[1] Çetin Celik[1]
[1]Obstetrics And Gynecology Department,Selçuk University Faculty Of Medicine,Konya,Turkiye

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ORCIDs of the authors:
BGO :0000-0002-7025-4087
AB :0000-0001-8682-1739
KS :0009-0004-6275-8041
AM :0009-0001-4468-338X
MK :0000-0002-5478-7510
CC :0000-0001-6165-5092

Abstract

Introduction: Conization is a surgical procedure performed to treat precancerous lesions. HPV is the most predisposing cause known. In our study, we aimed to evaluate and compare patients who were followed up as HPV positive and had conization due to cervical pathology in terms of dysmenorrhea, quality of life and sexual function.

Methods: HPV positive patients who underwent conization at Selcuk University Faculty of Medicine Obstetrics and Gynecology Department were evaluated.4 main surveys were used in the study. Personal and Demographic Information Form, Dysmenorrhea Scale - Visual Analogue Scale (VAS), Female Sexual Function Index (FSFI); It was evaluated using (Turkish Female Sexual Function Scale), and European Organisation for Research and Treatment of Cancer Quality of Life (Turkish EORTC QLQ-C30 (version 3.0)). In our study, we considered two groups: those without hpv positive conization and those with hpv positive conization.

Results: Dysmenorrhea scores of patients who underwent conization are higher than those of patients who did not undergo conization. Female sexual function scores of patients who underwent conization are higher than those of patients who did not undergo conization. There was no significant difference between the QoL scores of patients who underwent conization and those who did not.

Conclusion: The cervix has an anatomically important neurovascular network. Care should be taken at this point in terms of conization procedures. Surgical complications should be carefully evaluated in the treatment of precancerous lesions. HPV is a sexually transmitted disease and the treatment of lesions caused by it can affect anxiety, quality of life, sexual function and menstrual cyclus.

Correspondence Address: Beyhekim Mahallesı Alanlı Sok Beyhouse Park Sitesi 4 No: 6 Selcuklu Konya 06530 Konya - Türkiye **Phone: +90** 530 936 94 59 / **e-mail:** gzdgrgn35@gmail.com

Introduction

The loop electrosurgical excision procedure (LEEP), utilizes a skinny wire in the shape of a loop and an electrosurgical tool that allows accurate and selective blending of the current. Conization is performed with a scalpel, almost always under general or regional anesthesia. The patient is placed in the dorsal lithotomy position. It is the removal of the cervical pathological area, including the transformation zone. This cervical surgical procedure may be used to obtain excisional biopsies or to surgically treat high-grade ıntraepithelial lesions (HSIL) or persistent low-grade intraepithelial lesions (LSIL) and can be used to determine treatment modalities before cervical cancer surgery. Like any surgical procedure, conization has risks and complications. In this study can classify them as obstetric and nonobstetric. These are excessive bleeding after the postoperative period, excessive bleeding due to the operation, dysmenorrhea, and poor quality of life.[1] Especially depending on the depth of conization, premature birth, prematurity, and cervical insufficiency may develop.[2] At this point, Human Papilloma Vırus (HPV) is known as the pathogenic virus in the group that creates the most indications. Regarding social and sexual life, it can be thought that there is a decrease in sexual functions and quality of life in both men and women.[3-4] An increase in sexual life after conization can be detected, compared to HPV.[5]

In this study, we aimed to score the quality of life, dysmenorrhea, and sexual function of patients with HPV-positive preinvasive lesions who underwent conization and to compare these parameters in patients without HPV-positive preinvasive lesions.

Material and Methods

Patients who underwent conization/LEEP due to cervical pathologies at Selçuk University Faculty of Medicine, Department of Gynecology and Obstetrics, between 01/01/2021 and 30/12/2024 were evaluated. Two main groups were formed in the study. Those who were HPV positive and those who were HPV positive but developed HSIL or persistence LSIL and conization. Pathological specimens included approximately 0.5 cm areas of the conization material transformation zone to the excision margin were evaluated, and cases with intraoperative complications were not included. Patients between the ages of over 45 years who were diagnosed with high-grade intraepithelial lesions or persistent low-grade lesions and who were therefore planned for conization/leep surgery are the main sample of the study. In patients who develop secondary dysmenorrhea, those who are found to have no additional adnexal or other organ pathologies that may cause pelvic pain will be included. Patients with a known history of endometriosis, tuba-ovarian abscess and pelvic inflammatory disease, intrauterine device use, current pregnancy, or abortion, and those who wish to withdraw from the study will excluded from the study. Patients who did not use hormonal and surgical contraceptive methods, used barrier methods, or had unprotected sexual intercourse were evaluated. The questionnaires were evaluated when the patients were called for control. Since this was our routine evaluation, the patients were called by phone for missing forms. It was retrospectıvely evaluated because ıt was our routıne clınıc survey. Those who smoked, used substances, and had multiple partners were high-risk patients. HPV was not grouped separately; evaluation was made based on those that caused high-grade lesions and those that did not. The non-conization group consists of positive patients and those whose smear and cervical biopsy have no pathology if indicated and who are followed up. The conization group consists of patients who are HPV-positive and have pathology that requires conization.

Personal and Demographic Information Form, Dysmenorrhea Scale - Visual Analogue Scale (VAS), Female Sexual Function Index (FSFI); It was evaluated using (Turkish Female Sexual Function Scale), and European Organisation for Research and Treatment of Cancer Quality of Life (Turkish EORTC QLQ-C30 (version 3.0)).

The TFSFI survey has 19 questions; It evaluates 6 main factors: sexual desire, sexual arousal, lubrication, orgasm, satisfaction, and pain/discomfort. The highest total raw score that can be obtained in this scale is 95, the lowest raw score is 4, and after multiplying the coefficients, the highest score is 36 and the lowest score is 2. Impact coefficients were used to score the entire scale; It was determined as 0.6 for sexual desire, 0.3 for sexual arousal and lubrication, and 0.4 for orgasm, satisfaction, and pain/discomfort. A TFSFI score below 26.55 was defined as compatible with sexual dysfunction.[6] VAS scales pain intensity on a scale of 1-10.[7] T-EORTC; taken from this section means high scores indicate that the quality of life has increased, while low scores indicate that the quality has decreased.[8] Postoperative evaluation was made in the 8th week.

Selçuk University Faculty Of Medicine Ethical approval: 25.09.2024-E837694 2024/16

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Statistics

For power analysis, power values for different sample numbers were calculated with G*Power software. The data was analyzed through the Statistical Package for the Social Sciences (SPSS) 26.0 Statistics package program. Categorical variables of patients with and without conization are given as numbers and percentages, and numerical variables are given as mean and standard deviation. The compliance of the patients' dysmenorrhea, and female functionality normal distribution was determined by looking at the skewness and kurtosis values. It was observed that not all variables followed the rules of normal distribution. The Chi-Square Test was used to compare the descriptive characteristics of the patients according to the status of conization. Paired Sample T Test was used to compare the preoperative and postoperative dysmenorrhea, female sexual function, and anxiety levels of each group, and the Independent Sample T Test was used to compare the preoperative and postoperative dysmenorrhea, female sexual function and anxiety levels according to the conization status. In the entire study, significance levels were determined by taking into account the values of 0.05 and 0.01.

Results

Descriptive Data

In the study 1.2% of the patients who underwent conization were under the age of 45, 3.8% were aged 45 and over, and 100% of the HPV-positive patients who did not undergo conization were under the age of 45. According to these results, the age distribution and mean age of patients who underwent and did not undergo conization differed ($p<0.05$). 49% of patients who underwent conization and 74.5% of patients who did not undergo conization use protection methods. According to these results, there is no difference in contraceptive method use rates between patients with and without conization ($p<0.05$). The rate of using protection methods in patients who underwent conization is lower than in patients who did not undergo conization. When HPV status is examined; While 65.3% of the conization group had HPV 16 or 18, 45.5% of the non-conization group had these high-risk types. While the low-risk or negative HPV rate was 8.2% in the conization group, this rate was 29.1% in the non-conization group. 24.5% of patients who underwent conization and 43.6% of patients who did not undergo conization smoke. According to these results, the smoking rates of patients who underwent and did not undergo conization were similar ($p>0.05$). The rate of those with negative cervical pathology was 18.4% in the conization group and 65.5% in the non-conization group. The rate of unvaccinated individuals is 69.4% in the conization group and 92.7% in the non-vaccinated group. The rate of vaccinated individuals is 30.6% in the conization group and 7.3% in the non-vaccinated group. According to these results, the vaccination rates of patients who underwent and did not undergo conization differed ($p<0.05$) (Table 1).

Table 1. Descriptive characteristics of patients according to conization procedure

Descriptive Characteristics		Conization (n:49)		No conization (n:55)		p
		no	%	no	%	
Age	<45	30	61,2	55	100,0	**0,000****
	>45	19	38,8	0	0,0	
Smoking	No	37	75,5	31	56,4	0,065
	Yes	12	24,5	24	43,6	
Contraception Methods	No	25	51,0	14	25,5	**0,013***
	Yes	24	49,0	41	74,5	
HPV	Low risk	4	8,2	16	29,1	**0,000****
	HPV 16,18	32	65,3	25	45,5	
	Another HR-HPV	13	26,5	14	25,5	
Smear	Negative	19	38,8	38	69,1	**0,000****
	ASCUS	7	14,3	9	16,4	
	LSIL	2	4,1	5	9,1	
	HSIL	21	42,9	3	5,5	
Cervical pathology	Negative	9	18,4	36	65,5	**0,000****
	LSIL	5	10,2	14	25,5	
	HSIL	34	69,4	5	9,1	
	AGC	1	2,0	0	0,0	
Vaccination	No	34	69,4	51	92,7	**0,005****
	Yes	15	30,6	4	7,3	
		med±S.D (Min.-Max.)		Med.±S.D (Min.-Max.)		
Age		43,63 ± 9,05 (25-72)		37,24 ± 5,48 (23-44)		**0,000****

Ort.: Median, S.D.: Standard Deviation a, Min.: Minimum, Max.: Maximum.
Categorical data statistics: chi-squared test, t: Independent Sample T Test
HR HPV= High-Risk HPV , lSIL=Low grade intraepithelial lesion , HSIL= High-Grade intraepiteial Lesion, ASCUS= atypical squamous cells of undetermined significance AGC= Atypical glandular cells

Dysmenorrhea Status

There was a significant difference between the dysmenorrhea scores of patients who underwent conization and those who did not ($p<0.05$). The average dysmenorrhea score of patients who underwent conization is 4.97, and the average dysmenorrhea score of patients who did not undergo conization is 0.27. According to these data, dysmenorrhea scores of patients who underwent conization are higher than those of patients who did not undergo conization (Table2).

Table 2. Examination of dysmenorrhea, female sexual selectivity, and QoL levels of patients according to conization status

Parameters	Conization (n:49) Med .±S.D	No conization (n:55) Med.±S.D	p
Dysmenorrhea Score (VAS)	4,97 ± 3,03	0,27 ± 0,45	**0,000****
T-FSFI	18,38 ± 6,93	13,53 ± 9,73	**0,006****
T-QoL Score	5,21 ± 4,11	5,31 ± 6,29	0,927

*p<0,05, **p<0,01. p: Independent Sample T Test
Dysmenorrhea Scale - Visual Analogue Scale (VAS), Turkish Female Sexual Function Index (TFSFI); T-QoL Quality of Life (Turkish EORTC QLQ-C30 (version 3.0))

Examination of Female Sexual Functioning Levels

There was a significant difference between the female sexual function scores of patients who underwent conization and those who did not ($p<0.05$). The average female sexual function score of patients who underwent conization is 18.38, and the average female sexual function score of patients who did not undergo conization is 6.93. According to these data, female sexual function scores of patients who underwent conization are higher than those of patients who did not undergo conization (Table 2).

Quality Of Life (QoL) Score

There was no significant difference between the QoL scores of patients who underwent conization and those who did not. The average preoperative QoL score of patients who did not undergo conization was 2.89 and the average postoperative QoL score was 5.31. There was a significant difference between before-diagnostic and post-diagnostic QoL scores of patients without conization ($p<0.05$) (Table 3).

Table 3. QoL Levels Before and After Surgery According to Conization Status

Parameters		Conization (n:49) Md.±S.D	No conization (n:55) Md.±S.D	p1
QoL score	Preop-Dt	5,53 ± 4,75	2,89 ± 3,63	0,003**
	Postop	5,21 ± 4,11	5,31 ± 6,29	0,927
	p2	0,657	**0,000****	

*p<0,05, **p<0,01.
p1: Paired Sample T Test
p2: Independent Sample T Test
Dt= Diagnosis time

Discussion

As a result, the rate of postoperative dysmenorrhea in patients who underwent conization is higher than in those who did not undergo surgery. While there was no difference in sexual scoring in patients after conization, there was a decrease after the moment of diagnosis in patients without conization. While there was no preoperative and postoperative difference in patients with conization, there was a significant difference between the pre-and post-diagnostic quality of life scores of patients without conization. When the literature was examined in the light of this information, it was examined especially in terms of meaningful results. There was a significant difference in postoperative dysmenorrhea scores depending on the conization performed ($p<0.05$). According to these data, dysmenorrhea scores of patients who underwent conization are higher than those of patients who did not undergo conization. In a study, complications of trachelectomy were examined, especially in the young population where fertility preservation was desired. Although our study was a conization examination, similarities such as ulceration, cervical stenosis, and obstetric complications should be kept in mind.[9-10] In a randomized controlled study, dysmenorrhea, profound dyspareunia, amenorrhea, vaginal bleeding, and cervical stenosis clinics were evaluated after conization.[11] Although it is associated with painful syndromes such as HPV vulvodynia / vulvovestibulitis, its direct relationship with dysmenorrhea has not been shown.[12-13] According to the data of the study, female sexual function scores of patients who underwent conization were found to be higher than those who did not undergo conization. In another study in the sexual function and conization evaluation performed on 55 women, no significant decrea-

se was observed in sexual function scores.[14] In our findings, a decrease was found in the scores of those without conization. We think that the reason for this is that the patients can have a more comfortable sexual life after conization because they have HPV and lesion treatment, while the other group has a decrease in their scores because they carry HPV and are afraid to infect it or have partner problems. In a review article, the results of 9 centers were examined and, unlike our study, a negative decrease in scores was detected.[15] In a case-control series, no change in FSFI scores was observed along with an increase in anxiety level.[16] In this series, a 6-month follow-up was made, in our case this period was 2 months, but the same scales were used. In a study conducted ın Korea, including 66 cases, no significant difference was shown after leep.[17] Although it is an old study, it is important to inform patients because of the reproductive period age range.[18] Based on this study, sexual counseling may be recommended, although we do not practice it routinely. The average female sexual function score before diagnosis of patients without conization is 16.40 and the average female sexual function score after diagnosis is 13.53. A significant difference was observed between the female sexual function levels before and after diagnosis in patients who did not undergo conization ($p<0.05$). In a study conducted on patients with genital warts and a control group consisting of a total of 74 patients, an evaluation was made with the ENRICH Marital Satisfaction Scale and Arizona Sexual Experience Scale, and the score was found women with warts had lower scores than men.[19] Another study; ıt has revealed that HPV positivity causes a significant deterioration in women's psychological and sexual health.[20] This study, which showed that HPV increases in direct proportion to the number of partners but did not detect any difference in sexual function, was conducted in the form of a telephone interview and is reliable in that it covers a long-term process. Data was collected by scanning the archives of the tests we routinely perform in our clinic and by calling patients who could not be reached.[21] In a study with similar results Even several years after LLETZ or Conization women may suffer from impaired Emotional Well-Being and reduced HRQoL. Awareness and assessment of these long-term consequences should be part of surveillance after excisional treatments for cervical dysplasia. Although it is essential to administer the vaccine before infection occurs, it may also be recommended to administer it as soon as the patient is detected. New infections and the bimodal peak status of cervical cancer should be explained to the patient. Although it is essential to administer the vaccine before infection occurs, it may also be recommended to administer it as soon as the patient is detected. New infections and cervical cancer bimodal peak status should be explained to the patient. Depending on the patient's age group, 2 or 3 doses of vaccine may be recommended (nanovalan is preferred).[22]

Conclusions

When patients encounter the HPV result, they realize that it is a sexually transmitted virus, and this can cause problems in the couple's relationship and the patient's self-confidence. In this respect, patients can be directed to family therapy and individual psychotherapy. Detailed information about HPV, vaccination, and protection methods can be provided by avoiding speculation. Although patients' quality of life and sexual functions may be affected, suitable patients should be encouraged for the treatment of precancerous lesions. Large case series are needed to investigate the effects and complication profiles of many surgical procedures such as conization, LEEP, LLETZ (Large loop excision of the transformation zone), trachelectomy, and cervical amputation, both obstetrically and nonobstetrically.

No conflict of interest.

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