

ANXIETY AND DEPRESSION IN PATIENTS SUFFERING FROM CERVICAL CANCER ESTIMATED BEFORE SURGERY

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Anxiety and depression are the most usual reactions following different surgical procedures.

The aim of this investigation was to evaluate the presence of anxiety and depression in patients suffering from cervical cancer. Results before conizations and before surgery were compared so as to ascertain if there was statistically significant difference between these two groups of patients.

The investigation included 40 patients. Twenty patients underwent conizations, while other 20 patients underwent radical hysterectomy. Hamilton depression rating scale and Hamilton anxiety rating scale were used in this investigation. Results were analyzed using Independent Samples t- test.

The difference between average values of depression for $t=2.87 > t=2.02$ i $p < 0.05$ was statistically significant. There was a difference in results between group of patients with conization and group of patients with radical hysterectomy. Subjects with radical hysterectomy had higher level of depression.

The difference between average values of anxiety for $t=0.87 < t=2.02$ i $p > 0.05$ was not statistically significant. It can be concluded that the score on Hamilton anxiety rating scale before surgery was equal in both groups of patients. The results show that the fear of surgery exists, regardless of the kind of surgery. *Acta Medica Medianae 2008;47(2):49-53.*

Key words: anxiety, depression, cervical cancer, conization, radical hysterectomy

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Introduction

The body represents the most visible and the most stable part of ourself, which is experienced as a part of the own self or as its outer limit (1).

Certain part of the body whose pathology, or any other change could lead to psychological reactions depends most on the importance which that part of the body has for the entire personality. The extent of the deformity is also important, the system of individual's value, the readiness to accept the role of a sick person.

Anxious and depressing reactions often follow various operations. Depression is the consequence of the loss of an organ or its function.

Genital organs, along with secondary genital characteristics, belong to specification of biological sex of an individual. In the field of accepting the biological givenness of sexes during the development, genital identity is formed. Therefore, each disturbance, trauma or surgical

intervention on genital organs can result in significant disturbances of sexual identity, critical reactions with anxiety-depression content, even to psychotic reactions. This is more shown because healthy genitals represent a necessary precondition for complete and successful satisfaction of basic instincts. What is observed in literature is a significant occurrence of psychiatric and psychosexual disturbances that follow operations on female genital organs.

Hysterectomy represents psychosocially critical moment in the life of a woman which can be easily overcome or not, in the sense of physical and psychological health, as well as in the sense of sexual functioning. An operation is basically a provocation for the appearance of pathological anxiety in people who are predisposed to react anxiously. Fear is not the only aspect of psychoemotional reaction of a sick person. Simultaneously, there appears anxiety, almost continually, but with different intensity, fear with the assumption of bad future. Endangering is not only connected to physical integrity but also to a certain degree of social isolation. This reduction of function of a personality has a value of frustrating restriction because by being sick an individual is prevented from realizing some of the social roles of one's own goals and ideals (2).

According to the World Health Organisation (WHO) data, cervical cancer represents the second according to frequency and the third according to

mortality malignant tumor in the population of women on a global level. Around 274.000 of women die per year from cervical cancer and 83% in developed countries. Women older than 35 years make 80 to 90% of the diseased. According to evaluations, it is expected that in the year 2020 there will be 1000000 diseased women (3).

Cervical cancer requires diagnostic procedures which contain: PAP test, colposcopy, biopsy, abortion of cervical canal, conization and HPV tipisation (4). Determining the level of the cervical cancer is done according to "FIGO" criteria and the therapy depends on the level of the disease. In surgical therapy of cervical cancer, there are conization, amputation of cervix, classic hysterectomy and radical hysterectomy.

Classic hysterectomy and radical hysterectomy are performed for therapeutic purposes in cases of cancers that can be operated to "FIGO" stage IIB and conization as diagnostic and therapeutic procedures depending on pathohistological findings.

Conization is an operation that removes the tissue of the cervix which is around its outer part, with the tissue of endocervix in the shape of a cone with the top towards the inner part. The tissue obtained by conization is histopathologically examined and if it does not have malignant characteristics, or it has them but does not show the signs of invasion through basal membrane of the epithel, the operation is considered definitive therapeutic measure. It is usually done in young women.

Radical hysterectomy is an operation performed in invasive cancer to "FIGO" stage IIB. During this surgical intervention, what is removed are cervix, ovaries, fallopian tube, the upper third of the vagina, bound tissue of parametrium and paracolpium bound and fatty tissue together with lymphatic ways and glands along big blood vessels in small pelvis, along the urether and ophthulatory and ishiorectal pits, as well as in front of the rectum and behind urinary bladder.

The aim of this investigation was to evaluate the presence of anxiety and depression in patients suffering from cervical cancer. Results before conizations and before surgery were compared so as to ascertain if there was statistically significant difference between these two groups of patients.

Material and methods

At the Clinic of Gynecology and Obstetrics in Nis from October 1, 2007 to May 1, 2008 there were 40 patients operated. Twenty patients underwent conizations, while other 20 patients underwent radical hysterectomy. Hamilton depression rating scale and Hamilton anxiety rating scale were used in this investigation. Results were analyzed using Independent Samples t-test.

Hamilton's scale for evaluating depression was constructed because of the need for standardising phenomenology of depression syndrome and evaluating the degree of expression of depression

disturbance. Hamilton's scale for evaluating depression belongs to the group of individual scales and it is filled in by the examiner himself/herself. It is used in two original versions. One version has 21 items and the second one 17, with the following score: 0-7 without depression, 8-15 minor depression, 16 and more major depression.

Hamilton's scale for evaluating anxiety contains 14 items which cover somatic and psychological symptoms of anxiety and depression. Ranging of answers is gradual: 0-there is no anxiety, 1-low anxiety, 2-moderate anxiety, 3-serious anxiety, 4-expressed anxiety. On the scale itself next to each question there are closer characteristics of the given symptoms. This instrument is filled in by the examiner after the interview with a patient, which should not last longer than 30 minutes. Evaluation of the presence and intensity of certain parametres is based on the evaluation of patient's condition and it is done by the examiner during the interview. During the interview, the one who is examined should be relaxed and encouraged to describe his/her condition in one's own words, and their spontaneous reactions should be accepted as well, since they are an important part of the observation.

Results

Investigation involved two groups of women: twenty patients underwent conizations, while other 20 patients underwent radical hysterectomy.

The age of women examined ranged from 25-59 years. Distribution according to age grouping was steady, so that the coefficient of variation was from 3,79% for the first group to 2,74% for the second group. Higher average age was reported in women from the second group - 47,10 years, while the average age in the first group was 41,45 (Table 1).

Table 1. The age of subjects

Years	Group A (conization)		Group B (radical hysterectomy)	
	No	%	No	%
25-29	2	10.0	0	0.0
30-34	0	0.0	0	0.0
35-39	5	25.0	2	10.0
40-44	8	40.0	5	25.0
45-49	2	10.0	6	30.0
50-54	1	5.0	3	15.0
55-59	2	10.0	4	20.0
Total	20	100.0	20	100.0
middle value	41.45		47.10	
SD	1.5720		1.2931	
Cv	3.79%		2.74%	

Middle values of the age of the menarche appearance in the examined groups showed the principle of homogeneousness. For the first group, the middle value was 12,55 years, and for the second group 13,55 (Table 2).

The largest number of patients had two childbirths (60%) in both groups, so that the distribu-

tion of examined women according to the number of children was steady and there was no statistically significant difference for $p > 0,05$ between these two groups of examined patients (Table 3).

Table 2. Distribution of examinees by the time of menarche

Years	Group A		Group B	
	No	%	No	%
10	2	10.0	0	0
11	2	10.0	2	10.0
12	5	25.0	4	20.0
13	6	30.0	4	20.0
14	4	20.0	5	25.0
15	1	5.0	4	20.0
16	0	0	1	5.0
Total	20	100.0	20	100.0
middle value	12.5500		13.5500	
SD	1.3563		1.8202	

Table 3. Distribution of the number of children

No of birth	Group A		Group B	
	No	%	No	%
0	1	5.0	0	0.0
1	6	30.0	2	10.0
2	12	60.0	12	60.0
3	1	5.0	4	20.0
4	0	0.0	2	10.0
Total	20	100.0	20	100.0
middle value	1.6500		2.3000	
SD	0.6708		0.8013	

In both group of patients, there were non-smoker, 12 (60%) patients in the first group and 11 (55%) patients in the second group - (Table 4).

Table 4. Smoke

	Group A		Group B	
	No	%	No	%
smoker	8	40.0	9	45.0
nonsmoker	12	60.0	11	55.0
Total	20	100.0	20	100.0

In respect to with marital status, there was no statistically significant difference between the groups for $p > 0,05$, so that homogeneous principle was also present here. Both groups of patients involved married subjects, 19 (95%) subjects in the first group and 20 (100%) subjects in the second group (Table 5).

Table 5. Marital status

marital status	Group A		Group B	
	No	%	No	%
married	19	95.0	20	100.0
single woman	1	5.0	0	0.0
Total	20	100.0	20	100.0

In both groups, intermediate education dominates, 80% in the first and 90% in the second group. Presence of higher education for $p > 0,05$ was not statistically significant (Table 6).

The difference between average values of depression for $t=2.87 > t=2,02$ i $p < 0,05$ was statistically significant. There was a difference in results between group of patients with conization and group of patients with radical hysterectomy. Subjects with radical hysterectomy had higher level of depression.

Table 6. Education

education	Group A		Group B	
	No	%	No	%
1	16	80.0	18	90.0
2	1	5.0	1	5.0
3	3	15.0	1	5.0
Total	20	100.0	20	100.0

- 1- middle education
2- higher education
3- high education

Table 7. The influence of the type operations for depression

	Group A	Group B
middle value	1.7500	2.3000
SD	0.7164	0.4702
t	2.871	
p	0.007	

Table 8. The influence of the operation type on anxiety

	Group A	Group B
middle value	1.1000	1.2000
SD	0.3078	0.4104
t	0.872	
p	0.389	

The difference between average values of anxiety for $t=0,87 < t=2,02$ i $p > 0,05$ was not statistically significant. It can be concluded that the score on Hamilton anxiety rating scale before surgery was equal in both groups of patients. The results show that the fear of surgery exists, regardless of the kind of surgery.

Discussion

The role of a body in a non-verbal communication is big and reflexive messages about individual values for others through face expression, mime and body position are continually received. In social context, for some people, this non-verbal communication is the most important, so everything that violates the outer performance affects the essence of individual existence. All the visible parts of a body are involved in communication, broadcasting information, as is the case with speech, hearing, gestures, mime expression, body attitude, the look of the skin, hair, the way of walking. Negative attitudes connected with body are not just related to low self-evaluation and experience of insecurity, but also to anxiety that occurs because of pain, illness and body injuries.

Johnston (5) points to significance of preoperative anxiety which is in correlation with the expected postoperative anxiety, speed of

recovery and the appearance of pain after an operation. Because of these reasons it is very important to reduce preoperative anxiety. Anxious characteristics of personality to a great extent correlate with the occurrence of preoperative anxiety, but also with reflecting of anxiety after coming out of the hospital, with the occurrence of increased depression and getting tired, which all results in frequent visits to the doctor. Drellich (6) points out that those patients who before an operation do not show almost any concern are in fact camouflaging anxiety and they represent a risky group for developing panic or increasing anxiety in postoperative period.

The investigation (7-9) of the author describes seriousness of depression and anxiety symptoms in women who go to gynaecologist and oncologist for checking their gynaecological status. Visit to the doctor itself leads to concern and it is increasingly important in patients in whom the presence of malignant disease is confirmed. 42% of patients had clinically important depressing symptom, and 30% of patients had moderate to serious anxious symptom. The number of gynecological symptoms is in correlation with "the stressful response syndrome". Age and absence of a partner can add to patient's vulnerability. Patients who have stable relationships or partners accept more easily their disease and feel less depressed and anxious (1). In practice, the cases of clinical depression and generalized anxiety are not often recognized. Identification of these symptoms is very important in further course of curing the basic disease (10-12).

Patients examined in this study in most cases were not cured by a psychiatrist, not even in health centre conditions. High scores for anxiety are preoperatively shown on Hamilton's scale for anxiety, which is in accordance with data from literature (13). Fear of operation is the most intense on the day of admitting into a hospital because of the change of the environment,

especially in patients who have never been operated or cured in hospital. On the other hand, most of the authors (14) point out that fear is the most intense before the operation itself, while the patients wait to get into the operating theatre.

In our investigation the score of anxiety on Hamilton's scale before the operation was equal in both groups of patients, that is, it was not significantly different. Results show that the fear of an expected operation, regardless of the kind of an operation, is present. Somatic disease and hospitalisation represent critical life events which often cause feelings of helplessness, threat with the loss and lead to a passive position. In that kind of situation the diseased makes initiative attempts in overcoming unfavourable life situation by mobilising all available potentials of personality. Disturbance of adjusting in which clinical picture depressing mood dominates is the most commonly made diagnosis in the population of somatic patients and it represents one of more favourable indications for psychotherapy.

In our investigation the score of depression on Hamilton's scale before an operation shows the difference between the group of patients with conization and the group of patients with radical hysterectomy. The patients with radical hysterectomy had higher level of depression.

Conclusion

The difference between average values of depression was statistically significant. There was a difference in results between group of patients with conization and group of patients with radical hysterectomy. Subjects with radical hysterectomy had higher level of depression.

The difference between average values of anxiety was not statistically significant. It can be concluded that the score on Hamilton anxiety rating scale before surgery was equal in both groups of patients. The results show that the fear of surgery exists, regardless of the kind of surgery.

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ANKSIOZNOST I DEPRESIVNOST KOD BOLESNICA SA KARCINOMOM GRLIĆA MATERICE PRE OPERATIVNOG LEČENJA

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Anksiozne i depresivne reakcije najčešće prate različite operativne zahvate.

Cilj istraživanja bio je da se proceni prisustvo anksioznosti i depresivnosti kod bolesnica pre konizacije i pre radikalne hirurške intervencije sprovedene zbog karcinoma grlića materice i utvrdi da li postoji statistička značajnost razlika kod ove dve grupe bolesnica.

U našem istraživanju ispitivano je 40 bolesnica. Kod dvadeset bolesnica urađena je konizacija, a kod preostalih dvadeset radikalna histerektomija. Kao metode, korišćena su dva testa za izražavanje depresivnosti i anksioznosti i to Hamiltonova skala za depresivnost i Hamiltonova skala za anksioznost. Podaci su obrađeni korišćenjem T-testa.

Razlika između prosečnih vrednosti kod depresivnosti za $t=2.87 > t=2.02$ i $p < 0.05$ je statistički signifikantna. Skor depresivnosti na Hamiltonovoj skali neposredno pre operacije pokazuje razliku između grupe bolesnica kod kojih je rađena konizacija i grupe bolesnica kod kojih je sprovedena radikalna histerektomija. Bolesnice kod kojih je sprovedena radikalna histerektomija imaju viši stepen depresivnosti.

Razlika između prosečnih vrednosti kod anksioznosti za $t=0.87 < t=2.02$ i $p > 0.05$ nije statistički značajna. Može se smatrati da je skor anksioznosti na Hamiltonovoj skali neposredno pre operacije bio jednak kod obe grupe bolesnica, odnosno nije se bitno razlikovao. Rezultati ukazuju da je strah od očekivane operacije prisutan, bez obzira na vrstu operacije. *Acta Medica Medianae* 2008;47(2): 49-53.

Ključne reči: *anksioznost, depresivnost, karcinom grlića materice, konizacija, radikalna histerektomija*