

# Severity of climacteric symptoms and the quality of life of women affected by *BRCA1/BRCA2* genes mutations before and after risk-reducing salpingo-oophorectomy

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## Background

Ovarian cancer is the most common hereditary gynecologic neoplasm, associated with the presence of the *BRCA1/2* genes mutations. Early diagnosis and treatment of this disease remain a problem due to nonspecific symptoms, often resulting in making a diagnosis at an advanced stage. What is more, the effectiveness of currently available screening tests is inadequate. Hence, the recommendation to prophylactic salpingo-oophorectomy in order to reduce the death rate among patients with genetic predisposition.

## Methods

**Examined group:** 62 patients affected by *BRCA1/BRCA2* genes mutations, who decided to undergo RRSO

**Place:** Clinic of Gynecology and Gynecologic Oncology, SPSK No. 2, PMU in Szczecin, Poland

**Time:** January 2016-July 2018

**Methods:** two-staged survey-based study (before and circa 1 year after surgery:  $M \pm SD$  353,7 $\pm$ 170,7) with the use of:

- the author's questionnaire,
- the Blatt-Kupperman Index,
- the Women's Health Questionnaire (WHQ).

## Objectives

- The aim of the study was to assess the influence of risk-reducing salpingo-oophorectomy (RRSO) in patients with the *BRCA1/2* genes mutations on severity of climacteric symptoms and QoL.

## Results

Table 1. General characteristic of examined group (N=61)

Variable	n	%	
Type of gene mutation	<i>BRCA1</i>	58	95,1
	<i>BRCA2</i>	3	4,9
Operating procedure	ADNEX	46	75,4
	ACUCA	14	23,0
	TLH	1	1,6
Menopause	Before	38	62,3
	After	23	37,7
MTH after RRSO	No	47	77,0
	Yes	14	23,0

ADNEX – bilateral salpingo-oophorectomy, ACUCA – amputatio corporis uteri cum adnexa bilateralis, TLH – total laparoscopic hysterectomy, MTH – Menopausal Hormone Therapy, RRSO – Risk-reducing Salpingo-oophorectomy, n – number of respondents, % – percentage of respondents

Table 2. Severity of climacteric symptoms and the quality of life of women affected by *BRCA1/BRCA2* before and after RRSO (N=61)

Quality of life dimensions (WHQ) before RRSO	Severity of climacteric symptoms before RRSO				U	Z	p*	$\eta^2$
	Lack/mild (N=30)		Medium/Severe (N=31)					
	Me	IQR	Me	IQR				
Depressed mood (DEP)	1,00	0,14	0,86	0,43	287,0	2,757	0,010	0,108
Somatic symptoms (SOM)	0,86	0,29	0,57	0,28	199,0	3,893	0,000	0,241
Memory (MEM)	1,00	0,33	0,67	0,67	276,5	2,958	0,006	0,121
Vasomotor symptoms (VAS)	1,00	0,00	0,50	1,00	248,0	3,482	0,001	0,161
Anxiety/fears (ANX)	1,00	0,25	0,75	0,50	242,0	3,539	0,001	0,170
Sexual behaviour (SEX)	0,67	0,33	0,33	0,67	228,5	3,536	0,000	0,191
Sleep problems (SLE)	1,00	0,33	0,67	0,67	239,0	3,463	0,001	0,174
Menstrual symptoms (MEN)	1,00	0,25	0,75	0,50	313,0	2,331	0,028	0,079
Attractiveness (ATT)	0,50	0,50	0,50	0,50	378,5	1,357	0,214	-
Quality of life dimensions (WHQ) after RRSO	Severity of climacteric symptoms after RRSO				U	Z	p*	$\eta^2$
	Lack/mild (N=16)		Medium/Severe (N=45)					
	Me	IQR	Me	IQR				
Depressed mood (DEP)	1,00	0,29	0,86	0,43	244,0	1,965	0,058	-
Somatic symptoms (SOM)	0,71	0,22	0,57	0,38	194,0	2,749	0,006	0,121
Memory (MEM)	1,00	0,33	0,67	0,67	235,5	2,133	0,040	0,068
Vasomotor symptoms (VAS)	0,50	0,50	0,00	0,50	288,0	1,336	0,244	-
Anxiety/fears (ANX)	1,00	0,13	0,75	0,50	204,0	2,750	0,010	0,107
Sexual behaviour (SEX)	0,67	0,67	0,33	0,34	325,0	0,586	0,575	-
Sleep problems (SLE)	0,84	0,33	0,33	0,34	187,5	2,924	0,004	0,131
Menstrual symptoms (MEN)	0,84	0,33	1,00	0,33	350,5	0,164	0,877	-
Attractiveness (ATT)	0,50	0,50	0,50	0,50	354,0	-0,099	0,929	-

RRSO – Risk-reducing Salpingo-oophorectomy, Me – median, IQR – quartile range, U – the value of the statistics, z – the value of the statistics, \* – U Mann-Whitney test (with continuity correction),  $\eta^2$  – eta-square (effect size)

## Conclusions

- Climacteric symptoms belong to those medical variables that negatively affect the QoL of women with the *BRCA1* and *BRCA2* genes mutations both before and after preventive surgical removal of reproductive organs.



If you will have any further questions, please do not hesitate to contact us.