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FAKTORI RIZIKA ZA NASTANAK KARCINOMA DOJKE KOD ŽENA U CRNOJ GORI

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SAŽETAK

Uvod/Cilj: Brojni faktori rizika dovode se u vezu sa rakom dojke koji je vodeći uzrok obolevanja i umiranja u svetu. Cilj istraživanja je bio da se analiziraju faktori koji dovode do nastanka karcinoma dojke.
Metode: Ova serija slučajeva, obuhvatila je 154 žene sa karcinomom dojke kod kojih je ova dijagnoza po prvi put postavljena tokom 2018. godine u Kliničkom centru za onkologiju i radioterapiju Crne Gore. Od svih ispitanica podaci su prikupljeni upitnikom.
Rezultati: Prosečna starost žena sa karcinomom dojke je bila 46,42 (±12,77) godine. Reproduktivne karakterike žena pokazuju da je 95,5% žena menarhu imalo pre 15 godine života, a dete/decu je imalo 85,7% žena. Najveći broj (86,4%) žena je dete rodilo između 26 i 32 godine života. Od žena koje su rodile, 31,8% je imalo jedno, 49,3% dvoje i 18,9% troje i više dece. Većina žena (86,4%) je dojila dete. Oko ⅓ ispitanica je redovno koristila oralnu kontracepciju. Svaka druga žena je bila sadašnji pušač, a 28,6% bivši. Alkohol je redovno konzumiralo 3,9% žena, a povremeno 81,2%. Zdrav način ishrane imalo je 63,6% žena, 85,1% je sprovodilo fizičku aktivnost svakodnevno. Pozitivnu porodičnu anamnezu za rak dojke je imalo 16,2% žena. Od preventivnih aktivnosti žene sa rakom dojke su u 92,9% slučajeva imale preglede dojke od strane ginekologa, 36,4% je poznavalo tehniku samopregleda dojke, a na mamografskom pregledu je bilo 33,8% ispitanica (odnosno 58,4% žena uzrasta 50 iviše godina).
Zaključak: Neophodno je izabrati zdrave stilove života i edukovati se o važnosti preventivnih pregleda dojke, savladati tehnike samopregleda dojki i shvatiti važnost mamografije kao skrininga za rano otkrivanje raka dojke koji se predlaže u uzrastu od 50 do 69 godine života, na svake dve godine. Na ovaj način drastično se smanjuju troškovi lečenja i obezbeđuje bolji ishodi, a na prvom mestu bolji kvalitet života.

Ključne reči: karcinom, dojka, faktori rizika, prevencija

Uvod

Rak dojke je veliki javnozdravstveni problem na globalnom nivou i ima epidemijske razmere, a posledice obolevanja i umiranja pogađaju praktično sve segmente društva. Rak dojke je vodeći malignom u ženskoj populaciji Crne Gore, kako na osnovu incidencije tako i na osnovu mortalitetne statistike (1). Oko 60% žena u Crnoj Gori usled raka dojke umre pre 65 godine života (1).

Prema podacima Svetske zdravstvene organizacije (SZO), 2020. godina, broj nvoobolelih od raka dojke je bio oko 2,3 miliona, a umrlih oko 685 hiljada na globalnom nivou (2). Azija (obolelih - oko 1 milion i umrlih - oko 346 hiljada) i Evropa (obolelih – oko 532 hiljade i umrlih - oko 142 hiljade) su vodeće po broju obolelih i umrlih (2). U Evropi su najviše standardizovane stope incidencije u Zapadnoj Evropi (90,7/100.000), a najniže u Centralnoj i Istočnoj Evropi (57,1/100.000) (2). Standardizovana stopa mortaliteta najviše je u Zapadnoj Evropi (15,6/100.000), a najniža u Južnoj Evropi (13,3/100.000) (2).

Rak dojke takođe se dijagnostikuje u muškoj populaciji, ali izuzetno retko (3). U istraživanju sprovedenom u Centralnoj Srbiji, za period 2009-2020. godina, prosečna standardizovana stopa incidencije za rak dojke je bila 50,2 puta veća kod žena nego kod muškaraca, a stopa mortaliteta 49,5 puta (3)

Brojne studije su pokazale da primena organizovanog skrininga za rak dojke doprinosi ranom otkrivanju poremećaja zdravlja i redukciji mor-

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RISK FACTORS OF BREAST CANCER IN WOMEN IN MONTENEGRO

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SUMMARY

Introduction/Aim: Numerous risk factors are associated with breast cancer, which is the leading cause of morbidity and mortality in the world. The aim of this study was to analyze the factors that lead to the occurrence of breast cancer.
Methods: This case study included 154 women who were diagnosed with breast cancer for the first time during 2018 at the Clinical Center for Oncology and Radiotherapy of Montenegro. Data were collected from all respondents using a questionnaire.
Results: The average age of women with breast cancer was 46.42 (±12.77). The reproductive characteristics of women show that 95.5% of women had menarche before the age of 15, while 85.7% of them had child/children. The largest number of women (86.4%) gave birth to a child between the ages of 26 and 32. Of all the women who gave birth to a child, 31.8% had one child, 49.3% two children and 18.9% three and more children. The majority of women (86.4%) were breastfeeding their children. About ⅓ of respondents used the oral contraception regularly. Every second woman was a current smoker, and 28.6% were ex-smokers. Alcohol was regularly consumed by 3.9% of women, and occasionally by 81.2%. 63.6% of women had a healthy diet, while 85.1% were physically active on a daily basis. 16.2% of women had a positive family history of breast cancer. As far as preventive activities are concerned, women with breast cancer in 92.9% cases had breast examinations by gynecologists, 36.4% knew the technique of self-examination, while 33.8% of respondents (that is, 58.4% of women aged 50 years and older) underwent mammography.
Conclusion: It is necessary to choose healthy lifestyles and educate oneself about the importance of preventive breast examinations, learn the techniques of self-examination of breasts and realize the importance of mammography as a screening test for the early detection of breast cancer, which is recommended between the ages of 50 and 69, every two years. Thus, treatment costs are drastically reduced, better outcomes are ensured, and first of all, the quality of life is improved.

Key words: cancer, breast, risk factors, prevention

Introduction

Breast cancer is the major public health problem at the global level and has the proportions of an epidemic, while the consequences of morbidity and mortality affect practically all segments of society. Breast cancer is the leading malignancy in the female population of Montenegro, based on the incidence, as well as mortality statistics (1). About 65% of women in Montenegro die of breast cancer before the age of 65 (1).

According to the data of the World Health Organization (WHO) in 2020, the number of new cases of breast cancer was about 2.3 million, while the number of deaths was 685,000 globally (2). Asia (about 1 million new cases and 346,000 deaths) and Europe (532,000 new cases and 142,000 deaths) are the leading countries in relation to the number of cases and deaths (2). In Europe, the highest standardized incidence rates are in Western Europe (90.7/100,000), while the lowest are in Central and Eastern Europe (57.1/100,000) (2). The highest standardized mortality rate is in Western Europe (15.6/100,000), while the lowest is in Sothern Europe (13.3/100,000) (2).

taliteta i unapređenja kvaliteta života (4,5). Neophodno je zbog navedenog raditi na promociji skrininga za rak dojke, jer se jedino na ovaj način može doprineti poboljšanju epidemiološke situacije u svakoj zemlji po pitanju raka dojke (6).

Cilj istraživanja je bio da se analiziraju faktori koji dovode do nastanka karcinoma dojke.

Metode

Ovom serijom slučajeva, obuhvaćene su 154 žene sa histopatološki potvrđenom dijagnozom karcinoma dojke kod kojih je ova bolest po prvi put bila dijagnostikovana tokom 2018. godine u Kliničkom centru Crne Gore i to u Klinici za onkologiju i radioterapiju. Od svih ispitanica podaci su prikupljeni upitnikom koji je sadržao 25 pitanja koja su se odnosila na demografske karakteristike ispitanica, njihovo reproduktivnog zdravlja, navike i preventivne aktivnosti. Upitnik je bio anoniman i svaka ispitanica je potpisala pisanu saglasnost za uključivanje u studiju. Etički komitet Kliničkog centra Crne Gore je odobrio istraživanje. Dobijeni rezultati su prikazani tabelarno, korišćenjem apsolutnih vrednosti i proporcija.

Rezultati

Studijom je obuhvaćeno 154 žena sa dijagnostikovanim karcinomom dojke tokom 2018. godine. Najmlađa žena imala je 23 godine, a najstarija 75 godine. Prosečna starost žena je bila 46,42 (±12,77) godine. Od 154 ispitanice, 83 (53,9%) je imalo završenu srednju školu, 45 (29,2%) višu/visoku, a 26 (16,9%) je bilo bez škole ili sa osnovnom (tabela 1). Oko ¾ žena je stanovalo u gradskoj sredini, a oko ¼ u ruralnoj sredini. Najveći broj ispitanica (66,9%) je bilo u braku, a ni jedna u vanbračnoj zajednici.

Reproduktivne karakterike žena pokazuju da je 95,5% žena menarhu imalo pre 15 godine života, a živorođeno dete je rodilo 85,7% žena. Najveći broj (86,4%) žena je dete rodio između 26 i 32 godine života. Od žena koje su rodile, 31,8% je imalo jedno, 49,3% dvoje i 18,9% troje i više dece. Većina žena (86,4%) je dojila dete. Među ženama koje su dojile, bilo je najviše onih koje su dojile ≤6 meseci (53%) i 7-12 meseci (43,5%). Oko ⅓ ispitanica je redovno koristila oralnu kontracepciju.

Svaka druga žena je bila sadašnji pušač, a 28,6% bivši. Alokohol je često konzumiralo 3,9% žena, a povremeno 81,2%. Zdravu ishranu imalo je 63,6% žena, 85,1% je sprovodilo fizičku aktivnost svakodnevno. Prekomernu telesnu težinu smatralo je da ima 8,4% žena, a 98,7% je bilo izloženo svakodnevnom stresu. Bilo kada u toku života rendgen zračenju je bilo izloženo 94,2% žena, a pozitivnu porodičnu anamnezu za rak dojke je imalo 16,2% žena.

Tabela 1. Demografske karakteristike žena sa karcinomom dojke hospitalizovanih u Klinici za onko-logiju i radioterapiju u Kliničkom centru Crne Gore, 2018. godine

Karakteristike	Broj % (N=154)
Godine starosti (godine)	
< 40	7 (4,5)
40-49	58 (37,7)
50-59	37 (24,0)
60-69	36 (23,4)
70+	16 (10,4)
Obrazovanje	
Bez ili sa osnovnom školom	26 (16,9)
Srednja škola	83 (53,9)
Viša/Visoka škola	45 (29,2)
Mesto stanovanja	
Gradska sredina	122 (79,2)
Ruralna sredina	32 (20,8)
Bračni status	
Brak	104 (66,9)
Razveden/razvedena	20 (13,6)
Udovac/udovica	16 (10,4)
Neudat/neudata	14 (9,1)

Od preventivnih aktivnosti žene sa rakom dojke su u 92,9% slučajeva išle na redovne ginekološke preglede, 36,4% je poznavalo tehnike samopregleda dojke, a na mamografskom pregledu je bilo 33,8% ispitanica (odnosno 58,4% žena uzrasta 50 i više godina).

Diskusija

Rezultati naše studije ukazuju da su žene sa novodijagnostikovanim karcinom bile izložene brojnim faktorima rizika (stare 40 i više godina – 95,5%, nižeg stepena obrazovanja – 70,8%, pušači – 81,8%, korisnice alkohola – 85,1%, izložene stresu – 98,7%, sa pozitivnom porodičnom anamnezom za rak dojke – 16,2%, menarha pre 15 godine – 95,5%, trudnoća posle 32 godine – 8,3%, neradjanje – 14,3%, nedojenje – 13,6%, dužina dojenja 6 meseci i kraće – 53%). Od preventivnih aktivnosti u 92,9% slučajeva žene su išle na redovne ginekološke preglede, ali samo 36,4% je poznavalo tehnike samopregleda dojke i 33,8% je bilo na ma-

Breast cancer is also diagnosed in the male population, but extremely rarely (3). In a study conducted in Central Serbia for the period 2009-2020, the average standardized incidence rate for breast cancer was 50.2 times higher in women than in men, while the mortality rate was 49.5 times higher (3).

Numerous studies have shown that the implementation of organized screening for breast cancer contributes to the early detection of health disorders and the reduction of mortality and improvement of the quality of life (4,5). Therefore, it is necessary to work on the promotion of screening for breast cancer, because this is the only way to contribute to the improvement of the epidemiological situation in each country regarding breast cancer (6).

The aim of the study was to analyze the factors that lead to the occurrence of breast cancer.

Methods

This case study included 154 women with the histopathologically confirmed diagnosis of breast cancer, in whom this disease was diagnosed for the first time during 2018 at the Clinical Center of Montenegro, namely at the Clinic for Oncology and Radiotherapy during 2018. Data were collected from all respondents using a questionnaire, which contained 25 questions related to the demographic characteristics of respondents, their reproductive health, habits and preventive activities. The questionnaire was anonymous and each respondent signed a written consent for the inclusion in the study. The study was approved by the Ethics Committee of the Clinical Center of Montenegro. The obtained results were presented in tables using the absolute values and proportions.

Results

The study included 154 women diagnosed with breast cancer in 2018. The youngest woman was 23 years old, while the oldest was 75 years old. The average age of women was 46.42 (SD=12.77). Of 154 respondents, 83 (53.9%) had completed secondary school, 45 (29.2%) had graduated from college/faculty, while 26 (16.9%) had no schooling or had finished primary school (Table 1). About ¾ of women lived in urban areas, and about ¼ in rural areas. The largest number of respondents (66.9%) was married, and none of them lived in the common-law marriage. The reproductive characteristics of women showed that 95.5% of women had menarche before the age of 15, while 85.7% of women gave birth to a live child. The largest number of women (86.4%) gave birth to a child between the ages of 26 and 32. Of those women who gave birth to a child, 31.8% had one child, 49.3% two children, and 18.9% three and more children. The majority of women (86.4%) were breastfeeding their child. Among the women who breastfed, the majority of them breastfed <6 months (53%) and 7-12 months (43.5%). About ⅓ of respondents regularly used the oral contraception.

Table 1. Demographic characteristics of women with breast cancer hospitalized at the Clinic for Oncology and Radiotherapy of the Clinical Center of Montenegro, 2018.

Characteristics	Number (%) (N=154)
Age (years)	
< 40	7 (4.5)
40-49	58 (37.7)
50-59	37 (24.0)
60-69	36 (23.4)
70+	16 (10.4)
Education	
Without or with primary school	26 (16.9)
Secondary school	83 (53.9)
College/Faculty	45 (29.2)
Place of residence	
Urban areas	122 (79.2)
Rural areas	32 (20.8)
Marital status	
Married	104 (66.9)
Divorced	20 (13.6)
Widow/widower	16 (10.4)
Not married	14 (9.1)

Every other woman was a current smoker, and 28.6% former smokers. Alcohol was often consumed by 3.9% of women, and occasionally by 81.2%. 63.6% had a healthy diet, while 85.1% were physically active every day. 8.4% thought they were overweight, and 98.7% were exposed to everyday stress. 94.2% of women were exposed to X-ray radiation during lifetime, and 16.2% of women had a positive family anamnesis for breast cancer.

As far as preventive activities are concerned, women with breast cancer went to regular gynecological examinations in 92.9% of cases, 36.4% knew the techniques of breast self-

Tabela 2. Reproduktivne karakteristike žena sa karcinomom dojke hospitalizovanih u Klinici za onkologiju i radioterapiju u Kliničkom centru Crne Gore, 2018. godine

Karakteristike	Broj % (N=154)
Menarha (godina)	
≤15	147 (95,5)
≥16	7 (4,5)
Porađaj	
Da	132 (85,7)
Ne	22 (14,3)
Uzrast pri prvom porađaju (godine)*	
<25	7 (5,3)
26-32	114 (86,4)
≥33	11 (8,3)
Broj živorođene dece*	
1	42 (31,8)
2	65 (49,3)
3+	25 (18,9)
Dojenje	
Da	114 (86,4)
Ne	40 (13,6)
Dužina dojenja (u mesecima)**	
≤6	52 (53,0)
7-12	57 (43,2)
>12	5 (3,8)
Oralna kontracepcija	
Da	54 (35,1)
Ne	100 (64,9)

*Ukupan broj ispitanica je 132; **Ukupan broj ispitanica je 114.

Tabela 3. Navike, lična i porodična anamneza žena sa karcinomom dojke hospitalizovanih u Klinici za onkologiju i radioterapiju u Kliničkom centru Crne Gore, 2018. godine

Karakteristike	Broj % (N=154)
Sadašnji pušač	
Da	82 (53,2)
Ne	28 (18,2)
Bivši	44 (28,6)
Konzumiranje alkohola	
Redovno	6 (3,9)
Ponekad	125 (81,2)
Ne	23 (14,9)
Pravilna ishrana	
Da	98 (63,6)
Ne	56 (36,4)
Svakodnevna fizičku aktivnost	
Da	131 (85,1)
Ne	23 (14,9)
Stepen uhranjenosti (lična procena)	
Normalna	141 (91,6)
Prekomerna telesna težina	13 (8,4)
Izloženost stresu	
Da	152 (98,7)
Ne	2 (1,3)
Izloženost rendgen zračenju bar jednom u životu	
Da	145 (94,2)
Ne	9 (5,8)
Porodična anamneza za rak dojke	
Da	25 (16,2)
Ne	129 (83,8)

mografskom pregledu (odnosno 58,4% žena uzrasta 50 i više godina).

Veliki broj autora navodi da su brojni faktori, genetski, kao i faktori sredine, odgovorni za nastanak raka dojke. Rizik od raka dojke se povećava sa godinama starosti, prisustvom BRCA1 i BRCA2 gena, pozitivnom porodičnom istorijom za rak dojke, menarhom pre 12. godine života, gustinom dojke (više vezivnog nego masnog tkiva), postojanjem nekanceroznih bolesti dojke (atipična hiperplazija, lobularni karcinom in situ, itd.), zračenjem u oblasti grudi, korišćenjem leka dietilstilbestrola, fizičkom neaktivnošću, prekomernom telesnom težinom, korišćenjem oralnih kontraceptiva i hormonske supstitucione terapije, nedojenjem, trudnoćom posle 30 godine života, neraćanjem, konzumiranjem alkohola i pušenjem (7-12).

U meta-analizi koju su sproveli *Wu* i sar., koja je obuhvatila 31 studiju sa 63.786 ispitanika, uočeno je da manji rizik od raka dojke imaju žene koje su fizički aktivne (RR = 0,88; 95% interval poverenja - IP = 0,85-0,91 (7). Druga meta-analiza autora *Anothaisintawee* i sar., pokazala je da rizik od raka dojke značajno raste primenom oralnih kontraceptiva (Unakrsni odnos - UO =1,10; 95%IP = 1,03-1,18) i hormonske supstitucione terapije (UO = 1,23; 95%IP = 1,21-1,25), kao i postojanjem pozitivne lične anamneze za dijabete melitus (UO = 1,14; 95%IP = 1,09- 1,19) (8). Međutim, dojenje bilo je značajni protektivni faktor za nastanak raka dojke (UO = 0,72; 95%IP = 0,58-0,89). U studiji *Migliavacca Zucchetti* i sar. trudnoća i dojenje smanjuju rizik od raka dojke i efekat je proporcionalan ukupnom trajanju laktacije i broju trudnoća (9).

U velikom broju radova uočeno je da postoji negativna veza između raka dojke i fizičke aktivnosti (10). Pretpostavlja se da fizička aktivnost doprinosi redukciji štetnih efekata zapaljenja (inflamatornih

Table 2. Reproductive characteristics of women with breast cancer hospitalized at the Clinic for Oncology and Radiotherapy of the Clinical Center of Montenegro, 2018.

Characteristics	Number (%) (N=154)
Menarche (age)	
≤15	147 (95.5)
≥16	7 (4.5)
Delivery	
Yes	132 (85.7)
No	22 (14.3)
Age at the first delivery (years)*	
<25	7 (5.3)
26-32	114 (86.4)
≥33	11 (8.3)
Number of live births*	
1	42 (31.8)
2	65 (49.3)
3+	25 (18.9)
Breastfeeding	
Yes	114 (86.4)
No	40 (13.6)
Duration of breastfeeding (in months)**	
≤6	52 (53.0)
7-12	57 (43.2)
>12	5 (3.8)
Oral contraception	
Yes	54 (35.1)
No	100 (64.9)

* Total number of respondents is 132; **Total number of respondents is 114. .

Table 3. Habits, personal and family medical history of women with breast cancer hospitalized at the Clinic for Oncology and Radiotherapy of the Clinical Center of Montenegro, 2018.

Characteristics	Number (%) (N=154)
Current smoker	
Yes	82 (53.2)
No	28 (18.2)
Former	44 (28.6)
Alcohol consumption	
Regular	6 (3.9)
Sometimes	125 (81.2)
No	23 (14.9)
Adequate diet	
Yes	98 (63.6)
No	56 (36.4)
Daily physical activity	
Yes	131 (85.1)
No	23 (14.9)
Level of obesity (personal estimate)	
Normal	141 (91.6)
Overweight	13 (8.4)
Exposure to stress	
Yes	152 (98.7)
No	2 (1.3)
Exposure to X-ray radiation at least once in a lifetime	
Yes	145 (94.2)
No	9 (5.8)
Family history of breast cancer	
Yes	25 (16.2)
No	129 (83.8)

examination, and 33.8% of respondents had a mammographic examination (that is, 58.4% of women aged 50 and older).

Discussion

The results of our study indicate that women with newly diagnosed cancer were exposed to numerous risk factors (aged 40 years and older – 95.5%, lower level of education – 70.8%, smokers – 81.8%, alcohol users – 85.1%, exposed to stress – 98.7%, with a positive family history of breast cancer – 16.2%, menarche before the age of 15 – 95.5%, pregnancy after the age of 32 – 8.3%, not giving birth – 14.3%, not breastfeeding – 13.6%, length of breast feeding 6 months and shorter – 53%). As far as preventive activities are concerned, in 92.9% of cases, women went to regular gynecological examinations, while only 36.4% knew the techniques of self-examination, and 33.8% had a mammographic examination (58.4% of women aged 50 years and older).

A large number of authors state that numerous factors, genetic factors and environmental factors are responsible for the occurrence of breast cancer. The risk of breast cancer increases with age, the presence of BRCA1 and BRCA2 genes, a positive family history of breast cancer, menarche before the age of 12, breast density (more connective than fat tissue), the existence of non-cancerous breast diseases (atypical hyperplasia, lobular carcinoma in situ, etc.), radiation in the chest area, use of the drug diethylstilbestrol, physical inactivity, obesity, use of oral contraceptives and hormone replacement therapy, non-breastfeeding, pregnancy after the age of 30, not giving birth to a child, alcohol consumption and smoking (7-12).

In a meta-analysis conducted by Wu and associates, which included 31 studies with

Tabela 4. Preventivne aktivnosti žena sa karcinomom dojke hospitalizovanih u Klinici za onkologiju i radioterapiju u Kliničkom centru Crne Gore, 2018. godine

Karakteristike	Broj % (N=154)
Pregled dojke od strane ginekologa	
Da	143 (92,9)
Ne	11 (7,1)
Poznavanje tehnike samopregleda dojke	
Da	56 (36,4)
Ne	98 (63,6)
Mamografski pregled bilo kada u životu među svim ženama	
Da	52 (33,8)
Ne	102 (66,2)
Mamografski pregled bilo kada u životu među ženama uzrasta 50 i više godina*	
Da	52 (58,4)
Ne	37 (41,6)

*Ukupan broj žena uzrasta 50 i više godina je 89.

citokina) i modulaciji imunološkog odgovora kada je u pitanju rak dojke. Takođe, uočeno je da fizička aktivnost može doprineti smanjivanju rizika od recidiva i smrtnog ishoda kod osoba sa rakom dojke (10). Pozitivan efekat fizičke aktivnosti ogleda se i u redukciji telesne mase, jer je u mnogim radovima ukazano da gojaznost predstavlja faktor rizika (11). Interesantni su podaci istraživanja *King* i sar. da fizička aktivnost može odložiti početak nastanka raka dojke među ženama koje imaju BRCA1 i BRCA2 mutacije (12).

Usled veće svesti o raku dojke od strane žena i/ili promena u zdravstvenom sistemu, drastično se povećava broj žena koje su imale pregled dojki od strane lekara. Međutim, iako postoji porast pregleda dojki u ženskoj populaciji, ukupan broj žena koje redovno rade preglede i dalje je mali (13). U prospektivnoj studiji sprovedenoj u Ženevi bilo je uključeno 932 žene uzrasta 50-69 godina i praćene su 8 meseci. Posle posmatranog perioda mali je procenat žena prihvatio organizovani skrining (11,6%) i oportunistički skrining (39,4%) za rak dojke. Neophodno je razviti svest o neophodnosti podvrgavanju mamografiji.

Broj mamografskih pregleda u Crnoj Gori značajno se povećao kod žena, ali je to još uvek nedovoljno. Samo 33,8% ispitanica (odnosno 58,4% žena uzrasta 50 i više godina), 2018. godine, imalo je bar jedan mamografski pregled. Motivacioni faktor za odlazak na pregled dojki je bila pozitivna porodična anamneza. U zemljama u okruženju, stalno raste broj udruženja pacijenata, kao i grupa za podršku, koje pružaju podršku ženama za rano otkrivanje raka dojke, kao i za realizaciju svih drugih preventivnih mera.

Glavni nedostatak ove studije je što nismo izabrali za ispitanike adekvatnu kontrolnu grupu. Neophodna su dalja istraživanja ove problematike kroz analitičke studije.

Zaključak

Neophodno je raditi na edukaciji žena o važnosti dojenja, prestanku pušenja, adekvatnoj ishrani, fizičkoj aktivnosti, samopregledu dojki i prihvatanju mamografskog skrininga koji se predlaže u uzrastu od 50 do 69 godine života. Neophodno je raditi na stalnom unapređenju organizovanog skrininga u svakoj zemlji i prati njegove rezultate.

Konflikt interesa

Autori su izjavili da nema konflikta interesa.

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Table 4. Preventive activities of women with breast cancer hospitalized at the Clinic for Oncology and Radiotherapy at the Clinical Center of Montenegro, 2018.

Characteristics	Number (%) (N=154)
A clinical breast exam	
Yes	143 (92.9)
No	11 (7.1)
Knowing the technique of breast self-exam	
Yes	56 (36.4)
No	98 (63.6)
Mammographic examination at any time in life among all women	
Yes	52 (33.8)
No	102 (66.2)
Mammographic examination at any time in life among women aged 50 and older*	
Yes	52 (58.4)
No	37 (41.6)

*Total number of women aged 50 and older is 89.

63,786 respondents, it was noticed that women, who were physically active, had a lower risk of breast cancer (RR=0.88; 95% confidence interval – CI = 0.85-0.91 (7). Other meta-analyses of Anothaisintawee and associates showed that the risk of breast cancer increases significantly with the use of oral contraceptives (Odds Ration – OR = 1.10; 95%CI – 1.03-1.18) and hormone replacement therapy (OR = 1.23; 95%CI = 1.21-1.25), as well as when a positive family history of diabetes mellitus exists (OR = 1.14; 95%CI = 1.09-1.19) (8). However, breastfeeding was a significant protective factor for the development of breast cancer (OR = 0.72; 95%CI = 0.58-0.89). In a study of Migliavacca Zucchetti and associates, pregnancy and breastfeeding reduce the risk of breast cancer and the effect is proportional to the total duration of lactation and the number of pregnancies (9).

In a large number of studies, it was observed that there was a negative relationship between breast cancer and physical activity (10). It is assumed that physical activity contributes to the reduction of harmful effects of inflammation (inflammatory cytokines) and the modulation of the immune response when it comes to breast cancer. Also, it was observed that physical activity may contribute to reducing the risk of recurrence and death in persons with breast cancer (10). A positive effect of physical activity is also reflected in the reduction of body weight, as many studies have shown that obesity is a risk factor (11). Interesting data from the study of King and associates show that physical activity may postpone the onset of breast cancer among women who have BRCA1 and BRCA2 mutations (12).

Due to greater awareness of women regarding breast cancer and/or changes in the healthcare system, the number of women who had their breasts examined by a doctor is increasing drastically. However, although there is an increase in breast examinations in the female population, the total number of women who regularly go to check-ups is still low (13). In a prospective study conducted in Geneva, 932 women aged 50-69 were included and followed for 8 months. After the observed period, a small percentage of women accepted the organized screening (11.6%) and opportunistic screening (39.4%) for breast cancer. It is necessary o develop awareness about the necessity of undergoing mammography.

The number of mammography examinations in Montenegro increased significantly among women, but it is still insufficient. In 2018, only 33.8% of respondents (or 58.4% of women aged 50 and over) had at least one mammographic examination. A positive family history was a motivating factor for going to the breast examination. In neighboring countries, the number of patient associations is constantly increasing, as well as of support groups, which provide support to women for the early detection of breast cancer, and for the realization of other preventive measures.

The main limitation of this study is that we did not select an adequate control group for our respondents. Further research of this topic through analytical studies is necessary.

Conclusion

It is necessary to work on the education of women about the importance of breastfeeding, cessation of smoking, adequate diet, physical activity, breast self-examination and acceptance of mammographic screening, which is recommended at the age of 50 to 69 years. It is necessary to work on the constant improvement of organized screening in every country and observe its results.

Competing interests

The authors declared no competing interests.

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