ეგზიტაციით, რომელიც სრულად ქრება სტრეს ეკგ-ს დროს - 4 (16%). 3 ჯგუფი - სპორტსმენები, რომლებსაც მოსვენების ეკგ-ზე აღენიშნათ პარკუჭთა პრეეგზიტაცია და სტრეს ტესტის ელექტროკარდიოგრამაზე რჩება მისთვის დამახასიათებელი სურათი - 12 (48%). გამოვლენილი 25 ასიმპტომური პრეეგზიტაციის შემთხვევა შეადგენს კვლევაში მონაწილე სპორტსმენთა 0,16%-ს ანუ პრევალენტობა არის 1.6 1000 სპორტსმენზე. კარდიული წინასაშეჯიბრო სკრინინგი, რომელიც მოიცავს მოსვენებით და დატვირთვის ეკგ–ს შეიძლება ჩაითვალოს ასიმპტომურად მიმდინარე, მაგრამ უკს-ის რისკის მქონე პარკუჭთა პრეეგზიტაციის დიაგნოსტიკისა და უკს-ის რისკის სტრატიფიკაციის არაინვაზიურ საშუალებად.

EVALUATION OF THYROID DISEASE DETECTION AMONG FEMALE POPULATION WITH BREAST PATHOLOGIES IN KVEMO KARTLI REGION (GEORGIA)

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Despite providing continuous research, treatment and preventive activities, breast and thyroid diseases (TD) still remain a major public health challenge. Severe clinical forms, complications, and high mortality rate of these diseases are of great interest to general practitioners and/or researchers [1].

Thyroid dysfunction has a significant impact on human health status, due to its negative effect on thyroid hormones, cardiovascular, neurological, digestive systems, physical development, and/or cellular metabolism. Nodular goiter is considered as the most common thyroid pathology. Ultrasonographic evaluation have revealed the prevalence of thyroid nodules in 19–68% of women as well as among the elderly population. Chronic autoimmune thyroiditis, as the main cause of hypothyroidism in countries with high iodine intake, ranks second most common among thyroid diseases. The incidence rate of this pathology depends on the geographical location and is 30-150 cases per 100,000 populations per year; this pathology is 4-10 times more common in women in comparison with men. It should be emphasized that hypothyreosis is one of the most common thyroid pathologies (only 1-2% of the population) in countries with sufficient iodine intake levels.The incidence rates vary within 0.2-5.3% in Europe and -0.3-3.7% - the US, respectively. Over the recent past decade, the incidence of thyroid cancer (TC) has been increasing globally, especially among the female population [7].

According to the data suggested by the NCDC (National Center for Disease Control and Public Health), thyroid gland cancer is the second most frequent among the cancers of all localization registered in women in Georgia. Actually, alongside the reduction in the number of cancers of all localizations, the new incidence rate for thyroid cancer of all localization registered in women as well as among all age groups increased from 10% to 15% [9,10].

Breast and thyroid cancers are two malignancies with highest incidence rate in women. Frequently these cancers occur metachronously, women with breast cancer are at risk for developing thyroid cancer, suggesting a possible correlation and common etiopathogenesis [2,3,4,5,9]. No study, accurately recording the risk factors for thyroid pathologies in women with breast pathology, has been conducted in any specific region of Georgia and Kvemo Kartli is no exception. A number of aspects related to the regional peculiarities (existence of various ethnic groups, active involvement of industrial production in the economic development of the country, nutritional characteristics/dietary habits, differences in access to cultural, religious, health services, various endemic diseases, in particular iodine and other micronutrient deficiencies, diseases caused by heavy metal exposure, etc.). In view of the above, making effort to investigate the prevalence of thyroid cancer in women with breast pathology even in certain groups of the population, is very useful and of particular importance

Aim of the study - to investigate the prevalence of thyroid diseases in women, 35-65 of ages diagnosed with breast pathology in the Kvemo Kartli region and to assess the epidemiological situation;

The objectives of the study: to promote the early detection and prevention of thyroid cancer in the Kvemo Kartli region; to reduce the morbidity and mortality rates of breast and thyroid diseases; to evaluate the access and/or barriers to healthcare services to optimize women's health and health care needs.

Material and methods. Cross-sectional (prevalence) research was held in several medical institutions in Rustavi with a high number of patients "Aversi Clinic" in Rustavi, Rustavi Ltd "Family Doctor", Ltd. "Ecomed", Rustavi JSC N1 ɜand Diagnostic Center N2 Diagnostic Center Given that, according to the World Health Organization, the risk of developing breast cancer increases with age and reaches its highest rate between ages of 60-69, the study population was women belonging to the 36-65 age group who have applied to a medical facility from January to June 2021.

Sample Size: The sampling frame is based on the Georgian Census Database. Considering that 85294 women in the indicated age group live in the Kvemo Kartli region and, according to the literature, the prevalence of breast cancer in the female population is 15%, the error in the formula used to determine the 95% reliability (Z=1.96) was set at 5% (e=0.05), the prevalence of the main indicators was considered to be 15% (P=0.15); Design effect – 1.5, response rate 80%. 194 respondents were defined as the required sample size ($n=Z^2 P(1-P)/e^2$). Respondents were interviewed by a doctor using a specially designed questionnaire. The study did not share any personal information of respondents. Prior to the survey, the importance of the survey was explained to the respondents and each of them has signed a consent to participate in the survey. Database analysis was car-

ried out using strategic and bivariate research methodology (using statistical package Epi-info 7). The bivariate analysis calculated prevalence rations between risk factors and breast cancer (using 95% confidence interval).

Taking into account the correlation of breast and thyroid pathologies with a number of factors (age, marital status, radiation and medical treatment/drug therapy, socio-economic conditions, etc.), the survey questionnaire covers all possible risk factors. To determine the correlation between thyroid diseases and breast pathologies, the study population (194 respondents) was divided into two groups – a group of patients with breast cancer and a group of patients with other breast pathologies. A standard questionnaire was a research instrument, where along with demographic characteristics, the questions were related to treatment provided,. pregnancy, abortions, childbirth, family history of breast and thyroid disorders, complaints related to breast pathology, thyroid pathologies, research methods, access to medical services, barriers etc.

Results and discussion. Out of the 194 participants, the largest age group was 40-49 y.- 61 (31%), next 35-39 y. – 46 (24%), 50-59 y.- 44 (23%), 60-65 y. - 43 (22%).

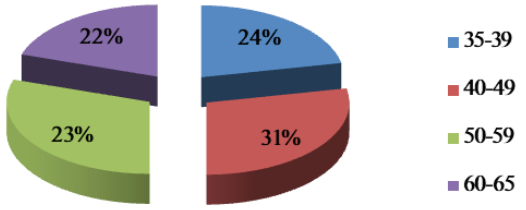

Fig. 1. Age distribution of respondents

The biggest ethnical groups were Georgians -121 (60%), Azerbaijani - 58 (30%), Russian- 9 (5%), Armenian - 6 (2%).

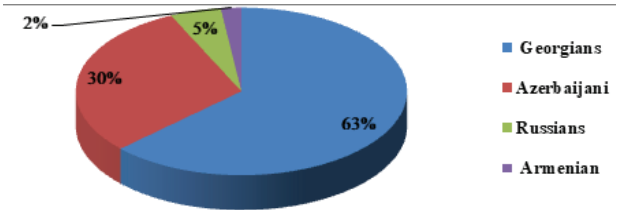

Fig.2. Distribution of respondents by nationality

The majority of women surveyed were married, 4% unammaried, 5% divorced, 9% widowed, etc. The majority of respondents have secondary eduction, many of whom, especially Azerbaijani women living in rural areas are housewives. 45% of respondents are uninsured, of which 64% have private and 36% state insurance, Family history of breast disease was confirmed in 18% of respondents, these data differ slightly from the data suggested by the Johns Hopkins Center (5-10% inheritance impact) and coincided with data of the National Cancer Institute (15-20%), while thyroid pathologies was confirmed in 7% of respondents. 75% of respondents experienced breastfeeding. For the last two years breast pain has been reported in 87% of patients, breast density - in 44% and bloody discharge from the breast - in 8% of respondents, respectively.

The distribution of women (35-65 of ages, in Kvemo Kartli region) according to breast pathologies revealed the following results: mastopathy in 37% (720, fibrocystic mastopathy in 12% (23), fibroadenoma in 12.5% (24), breast cyst in 13.5% (26) and cancer in 25% (49) of respondents, respectively.

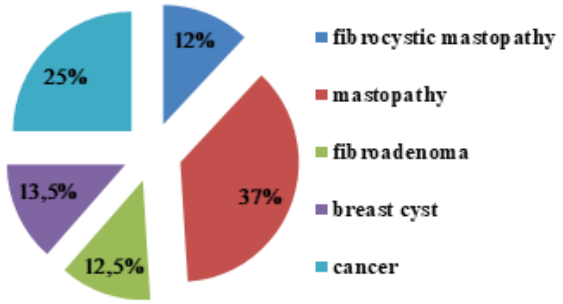

Fig.3. Distribution of respondents by breast pathologies

The highest prevalence was observed in the age group of 35-39 years, as for fibroadenoma, the incidence rate increased with age, however, decreased at the age of 60-65 years; as for breast cancer, the number of cases increased with age and peaked at the age of 60-65 years. The last ratio between the age of respondents and breast cancer incidence rate were statistically significant, in particular, the risk for developing breast cancer was 4 times higher in respondents over 50 years of age.

Thyroid pathology was observed in 30% (58) of the respondents, the most common of which were nodular goiter -25 (43%), hypothyroidism-16 (28%), thyroid cancer -7 (12%), Autoimmune thyroiditis -7 (12%), Hyperthyroidism-2 (3%), Diffuse goiter-1 (2%).

Table 1. Distribution distribution of women according to breast pathologies and age groups

Diseases	35-39 (%)	40-49 (%)	50-59 (%)	60-65 (%)
mastopathy	24%	13%	7%	2%
fibroadenoma	20%	41%	52%	35%
fibrocystic mastopathy	28%	13%	2%	5%
breast cyst	24%	15%	7%	7%
cancer	4%	18%	32%	51%
Total	100%	100%	100%	100%

Table 2. Distribution of respondents according to the period from detection of breast pathology to the current study

Months	Number	Percent
1-12	32	17%
13-24	76	39%
25-36	75	38%
37-60	11	6%
total	194	100%

Table 3. Distribution of respondents according Thyroid pathology

Thyroid pathology	Number	Percent
Hyperthyroidism	2	3%
Hypothyroidism	16	28%
Diffuse goiter	1	2%
Autoimmune thyroiditis	7	12%
Nodular goiter	25	43%
Thyroid cancer	7	12%
total	58	100%

Table 4. Distribution of respondents according to breast pathology and thyroid research status

Breast pathology	Thyroid research status
fibrocystic mastopathy (n=23)	65%
breast cancer (n=49)	37%
mastopathy (n=72)	68%
fibroadenoma (n=24)	25%
breast cyst (n=26)	54%

Table 5. Distribution of respondents according to Period of thyroid pathology detection

Period of thyroid pathology detection	Number	%
Prior to breast pathology detection	15	26%
< 1 year after breast pathology detction	28	48%
1-3 years after breast pathology detction	15	26%
> 3 years after breast pathology detction	-	-

Thyroid gland research was conducted in 53% of the respondents. 97% of them underwent ultrasonographic examination, 27% - puncture, and 67% - thyroid-stimulating hormone analysis (TSH test), respectively.

At various breast pathologies thyroid research was conducted in 68% of respondents with mastopathy (72), 65% - with breast fibrocystic mastopathy (65), 37% - breast cancer (26), 54% with breast cyst (26), and 25% - fibroadenoma 924), respectively.

The period / time of thyroid pathology detection started prior to occurring the breast pathology and lasted for more than 3 years from the moment of detection.

Detection 91% (174) of the respondents indicate one or more hindering reasons in terms of breast pathology detection. Of the reasons most prominent was the economic one, partly related to the Covid 19 pandemic and social isolation; psychoemotional fear was allocated the second place. Most of the respondents involved in the research were not able to undergo on time screening due to the following reasons: fear, the most of the patients involved were Azerbaijani living in rural areas and the percentage of mobility as well as access to health care services was very low as in most cases they were dependent on their spouses and/or other family members; in addition, about 28% of the patents had language problems.

All the above prevented them from being included in the screening program and passing preventive measures and getting timely treatment. It should be noted that 87% of respondents are not informed that at breast pathology to check for thyroid issues and early detection of the pathology is recommended. Actually, most patients were referred for thyroid screening by mammologists (54%) endocrinologists (32%) and family doctors (14%).

Since the aim of our study was to investigate the breast cancer and other pathologies in correlation with thyroid diseases, the study population was divided into a group of patients with breast cancer and a group with any other breast pathology. Breast cancer was revealed in 25% of respondents, 67% of the respondents belonged to the age category of 51-65 years. It is noteworthy to emphasize that only 37% of respondents with breast cancer passed a thyroid examination.

The correlation/relationship degree between breast cancer and thyroid diseases (TD), access to health care services, and thyroid research was determined using bivariate analysis. A statistically

significant correlation between the risk factors assessed on possible correlation and breast cancer was revealed:

1. As for the breast cancer and thyroid diseases, the chance of developing any thyroid pathology among breast cancer patients is almost 5 times higher in comparison with patients with other breast pathologies: (odds ratio (OR))= 4.9 95%CI (1.8-13.1);

2. As for the respondents utilizing insurance package and the thyroid examinations, the chance of conducting the survey is 2 times higher among the users of the insurance package: (OR)= 2.4%CI (1.3 -4.3);

3. Knowledge /information on the necessity for thyroid research at breast pathology; the chances of conducting the survey among informed respondents are 12 times higher in comparison with non-informed ones: (OR)= 12.6%CI (2.9 -55.4).

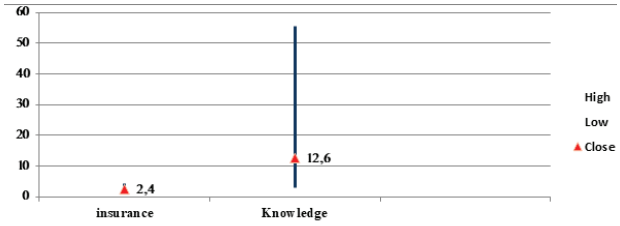

Fig.4. Prevalence of the odds ratio (OR) between the respondents utilizing insurance package and the thyroid examinations, Knowledge on the necessity for thyroid research at breast pathology and the thyroid examinations

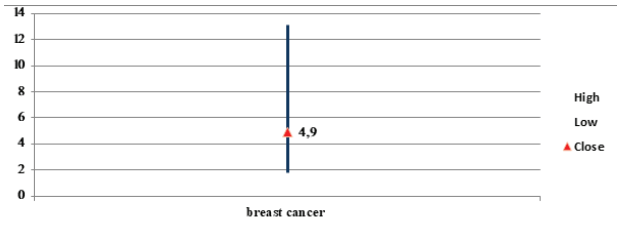

Fig.5. Prevalence of the odds ratio (OR) between the breast cancer and thyroid diseases

Consequently, only 103 (53%) of the respondents among the female population with breast pathologies (n=194) in Kvemo Kartli underwent thyroid examination. 169 (87%) of respondents were not informed that early detection of thyroid diseases at breast pathologies is of great importance. Breast cancer was reported in 49 (25%) of respondents, 40 (83%) of respondents belonged to the age category of 50-65 years. Only 18 (37%) of respondents with breast cancer underwent thyroid examination. Respondents utilizing the insurance packages are twice as likely to pass thyroid examination. Thyroid gland research was conducted in 53% of the respondents.

Based on the above-mentioned, the women with breast diseases in Kvemo Kartli should be exposed to timely diagnosis and treatment of thyroid diseases by screening; ensuring early detection and prevention of breast and thyroid cancers by eliminating barriers to accessing medical services and early detection of breast and thyroid diseases. To make available and facilitate breast screening and thyroid examination services to optimize women's health, to assist both physicians and patients in making crucial measures towards development of personalized medicine. Increase awareness of the correlation between breast and thyroid diseases at the primary health care level, carry out additional epidemiological investigations focusing on gender and regional incidences. Understanding and awareness of possible mechanisms will assist in providing both disease diagnostics and clinical management.

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SUMMARY

EVALUATION OF THYROID DISEASE DETECTION AMONG FEMALE POPULATION WITH BREAST PATHOLOGIES IN KVEMO KARTLI REGION (GEORGIA)

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Aim of the study: to investigate the prevalence of thyroid diseases in women, 35-65 of ages diagnosed with breast pathology in the Kvemo Kartli region and to assess the epidemiological situation; The objectives of the study: to promote the early detection and prevention of thyroid cancer in the Kvemo Kartli region; to reduce the morbidity and mortality rates of breast and thyroid diseases; to evaluate the access and/or barriers to healthcare services to optimize women's health and health care needs. Cross-sectional (prevalence) research was held in several medical institutions in Rustavi with a high number of patients.

Consequently, only 103 (53%) of the respondents among the female population with breast pathologies (n=194) in Kvemo Kartli underwent thyroid examination. 169 (87%) of respondents were not informed that early detection of thyroid diseases at breast pathologies is of great importance. Breast cancer was reported in 49 (25%) of respondents, 40 (83%) of respondents belonged to the age category of 50-65 years. Only 18 (37%) of respondents with breast cancer underwent thyroid examination. Respondents utilizing the insurance packages are twice as likely to pass thyroid examination.

Most patients were referred for thyroid screening by mammologists (54%) endocrinologists (32%) and family doctors (14%).The women with breast diseases in Kvemo Kartli should be exposed to timely diagnosis and treatment of thyroid diseases by screening; ensuring early detection and prevention of breast and thyroid cancers by eliminating barriers to accessing medical services and early detection of breast and thyroid diseases.

Keywords: breast cancer, female population, oncological diseases, thyroid gland, correlation.

РЕЗЮМЕ

РАСПРОСТРАНЕННОСТЬ ЗАБОЛЕВАНИЙ ЩИТОВИДНОЙ ЖЕЛЕЗЫ ПРИ ПАТОЛОГИЯХ ГРУДИ У ЖЕНЩИН, ПРОЖИВАЮЩИХ В КВЕМО КАРТЛИ (ГРУЗИЯ)

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Несмотря на множество проведенных исследований, успешное лечение и профилактику патологии груди и щитовидной железы являются серьезной проблемой здравоохранения.

Целью исследования явилось определение распространенности в регионе Квемо Картли заболеваний щитовидной железы у женщин с установленной патологией груди в возрасте 35-65 лет.

Поперечное исследование проведено в нескольких медицинских учреждениях города Рустави - "Клиника Аверси", "Оджахис экими", "Экомед", А/О Диагностические центры N1,2).

Наблюдались 194 женщины в возрасте 35-65 лет с установленной патологией груди. Исследование показало, что 103 (53%) женщины с патологией груди прошли обследование щитовидной железы, однако 169 (87%) не были информированны о необходимости обследования щитовидной железы. Рак груди выявлен у 49 (25%) респондентов, из них 40 (83%) относятся к возрастной категории 51-65 лет и лишь 18 (37%) прошли обследование щитовидной железы.

У пациентов с раком груди вероятность развития любой патологии щитовидной железы почти в 5 раз выше, чем у пациенток с другими патологиями груди. Обнаружена статистически значимая корреляция между знаниями о необходимости обследования щитовидной железы при патологии груди и обследованием щитовидной железы, в частности, среди информированных респондентов вероятность проведения обследования в 12 раз выше, чем среди неосведомленных. В популяции Квемо Картли рекомендуется внедрить своевременную диагностику и лечение заболеваний щитовидной железы у женщин с заболеваниями груди и посредством скрининга содействовать раннему выявлению и профилактике данных патологий.

რეზიუმე

ფარისებრი ჯირკვლის დაავადებების გამოვლენის შეფასება ძუძუს პათოლოგიების დროს ქვემო ქართლის ქალთა პოპულაციაში (საქართველო)

მ.ზურაბაშვილი, რ.კვანჭახაძე

საქართველოს უნივერსიტეტი, თბილისი, საქართველო

ხანგრძლივი შესწავლის, მკურნალობის და პრევენციული აქტივობების მიუხედავად სარძევე ჯირკვლის და ფარისებრი ჯირკვლის დაავადებები საზოგადოებრივი ჯანდაცვის მნიშვნელოვან პრობლემად რჩება.

კვლევის მიზანს წარმოადგენდა ქვემო ქართლის რეგიონში ძუძუს დადგენილი პათოლოგიით 35-65 წლის ქალებში ფარისებრი ჯირკვლის დაავადებების გავრცელების შესწავლა.

ჯვარედინ-სექციური კვლევა ჩატარდა ქალაქ რუსთავის პაციენტთა მადალი მიმართვიანობით გამორჩეულ სამედიცინო დაწესებულებაში: რუსთავის «ავერსის კლინიკა», შპს «ოჯახის ექიმი», შპს «ექომედი», ს/ს N1 და N2 დიაგნოსტიკური ცენტრი. საკვლევ პოპულაციას წარმოადგენდნენ 35-65 წლის ასაკის ქალები სარძევე ჯირკვლის დაავადებით. კვლევაში ჩართული იყო 194 რესპოდენტი.

კვლევის შედეგად დადგინდა, რომ ძუძუს პათოლოგიების დროს მხოლოდ 103 (53%) ჰქონდა ჩატარებული ფარისებრი ჯირკვლის კვლევა. 169 (87%) რესპოდენტთმა არ იყო ინფორმირებული, რომ ძუძუს პათოლოგიის შემთხვევაში საჭიროა ფარისებრი ჯირკვლის დაავადებების სკრინინგი. ძუძუს კიბო აღენიშნებოდა 49 (25%) რესპოდენტს, რომელთაგანაც 40 (83%) წარმოადგენდა 51-65 წლის ასაკობრივ კატეგორიას. აღსანიშნავია, რომ ძუძუს კიბოს მქონე რესპოდენტთა მხოლოდ 18 (37%) ჰქონდა ჩატარებული ფარისებრი ჯირკვლის კვლევა.

სარძევე ჯირკვლის კიბოთი დაავადების შორის ფარისებრი ჯირკვლის რომელიმე პათოლოგიის განვითარების რისკი 5-ჯერ უფრო მეტი იყო, ვიდრე სარძევე ჯირკვლის სხვა პათოლოგიების დროს. სტატისტიკურად სარწმუნო კორელაცია გამოვლინდა ცოდნას ძუძუს პათოლოგიის დროს ფარისებრი ჯირკვლის კვლევის აუცილებლობისა და ფარისებრ ჯირკვალზე კვლევის ჩატარებას შორის, კერძოდ ინფორმირებულ რესპოდენტებს შორის კვლევის ჩატარების შანსი 12-ჯერ მეტი იყო, ვიდრე არაინფორმირებულებში.

რეკომენდირებულია ქვემო ქართლის ქალთა პოპულაციაში სარძევე ჯირკვლის დაავადებებით ქალებში დაინერგოს ფარისებრი ჯირკვლის დაავადებების დროული დიაგნოსტირება და მკურნალობა სკრინინგის მეშვეობით; ძუძუსა და ფარისებრი ჯირკვლის დაავადებების სკრინინგის ხელშემშლელი ბარიერების აღკვეცის გზით მოხდეს სარძევე და ფარისებრი ჯირკვლის კიბოს ადრეული გამოვლენა და პრევენცია.