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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

ТБИЛИСИ - НЬЮ-ЙОРК

GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board and The International Academy of Sciences, Education, Industry and Arts (U.S.A.) since 1994. **GMN** carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

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Fax: 995 (32) 253-70-58

CONTACT ADDRESS IN NEW YORK

NINITEX INTERNATIONAL, INC.
3 PINE DRIVE SOUTH
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2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

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3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

Содержание:

DENTAL STATUS FEATURES IN PATIENTS DURING ANTI-CANCER CHEMOTHERAPY (TRANSCARPATHIAN ANTITUMOR CENTER EXPERIENCE)

[1]Helei N., [1]Kostenko E., [2]Rusyn A., [1]Helei V.

Uzhgorod National University, [1]Dental Faculty, [2]Medical Faculty; Ukraine

One of the most common complications of complex anticancer therapy is the development of various lesions of the oral cavity, including mucositis which adversely affect the quality of life [2], limits the dose of chemotherapy and radiotherapy, and further adversely affects the effectiveness of complex therapy and increase the cost of rehabilitation. In addition, mucositis of the oral cavity significantly increases the cost of treatment of cancer patients and increases the length of hospitalization. There are a number of publications that demonstrate correlations between the level of dental health, the level of oral hygiene and the severity of secondary lesions of the maxillofacial tissues on the background of antitumor chemotherapy. Therefore, the control of dental status and oral hygiene [9] is important in predicting and preventing the development of severe mucositis [5,12].

According to official sources of medical statistics in many countries around the world it may be judged on a consistently high number of cases of malignant tumors among the population which brings this type of pathology into a number of the most pressing health care problems. According to public health experts, the number of patients with malignant neoplasms may reach up to 1.4% of the population. WHO reports show that mortality from cancer is on the second place after diseases of the circulatory system in the structure of overall mortality so the issues of prevention, timely diagnosis, treatment of tumors, palliative care, comprehensive rehabilitation of the patient and ensuring a proper quality of life are extremely important. And the role of the dentist in such rehabilitation of the patient today is not properly assessed [8,12,14].

Modern protocols for the treatment of malignant tumors of various localizations include special chemotherapy and polychemotherapy [1,9]. Except tumor cells such medicines may cause a severe negative impact on all organs and systems of the body, and the oral cavity is affected among such patients in 100.0% of cases. That`s why we know a special nosological form – oral mucositis. Back in 1972, in USSR famous scientist AI Vorobyov proposed the another special definition - "cytostatic disease", a polysyndromic disease caused by anti-cancer chemotherapy that has manifestations on different organ and systems, including oral mucosa lesions of varying severity [6,7,12]. A number of clinical and population studies have proven the role of dental rehabilitation to prevent the development of chemotherapy and radiational mucositis but as practice shows 100.0% of patients admitted to oncological and onco-hematological [25] hospitals have unsanitary oral cavity and extremely low level of individual oral hygiene. Therefore, it is of scientific interest to dynamically determine the dental status at the stages of anti-tumor radiational and chemotherapy and to identify the relationship between changes in dental status and changes on oral mucosa among the patients [16,21]. This is allowed to determine the purpose, objectives and methodology of this study.

Objective - to investigate the dental status of patients during anticancer chemotherapy by clinical examination and calculation of hygienic indices.

Material and methods. The study group included patients diagnosed with malignant tumors who were on the treatment of the underlying disease (the protocol included the use of chemotherapeutic anti-tumor drugs of different groups intravenously, orally and in combination with other methods of treatment). All the patients were hospitalized to Transcarpathian Antitumor Center of the Transcarpathian Regional Council in Ukraine (head – MD, DMSc, Prof. A.V. Rusyn). During the study, the oral cavity of 130 patients was examined (with their voluntary consent), during the examination the dental status was registered and complaints were recorded (by filling out the developed special questionnaire). Patients recorded the condition of the oral mucosa, caries intensivity index (caries: filled: removed), CPI index (due to Russel), Green-Vermilion index, Fedorov-Volodkina index, separately determined the presence of metal orthopedic dentures and destructed teeth, needs for dental care were also determined.

Totally, the study group consisted of 61 men and 69 women (Table 1), which were conditionally divided into 4 age subgroups – 35–44 years, 45–54 years, 55–64 years and 65–75 years (and senior).

Analysis of patients` medical data revealed that patients received specialized chemotherapeutic agents as follows: cetuximab, letrozole, capecitabine, bendamustine, bortezomib, rituximab, paclitaxel, vinorelbine, and oxaliplatin. These medicines have antineoplastic activity and they are able to non-selectively affect tissues with a rapid rate of regeneration which also includes the oral mucosa, ie, such medicines can cause mucositis, atrophic and ulcerative lesions of the oral mucosa.

Analysis of the anamnesis of patients' lives revealed that they had malignant tumors of different localization mainly 3-4 degrees of severity and they were on anti-neoplastic chemotherapy for the first and second time (Table 2).

The questionnaire for recording patients' complaints at the dentist's examination contained questions about the presence of patients with oral pain and maxillofacial area (its nature), the presence of irradiation, paresthetic sensations, xerostomia, swallowing disorders, opening of the mouth disorders, the appearance of angular cheilitis, changes in taste sensations, bleeding, pus from periodontal pockets, the formation of erosions and ulcers. Also, from the anamnesis of patients' lives, information was established about the previous dental rehabilitation of the oral cavity, the frequency and number of visits to the dentist during the year, the presence of developed habits of proper oral care.

All results of the examination of patients were entered into a specially designed study card, and then copied to an electronic database where they were analyzed using descriptive statistics. All patient data were depersonalized in order to protect information that may constitute medical confidentiality, all patients prior to inclusion in the study groups gave written consent and received full information about the study.

The protocol of this study was previously presented and approved for use by the commission on bioethics of Uzhhorod National University.

Results and discussion. Studies have shown that, in general, patients with malignant tumors who were on complex antitumor treatment (chemotherapy) had a significant number of complaints related to dental nosology and maxillofacial lesions, unsatisfactory dental status, enough high need for oral rehabilitation and emergency dental care (Table 3).

Table 1. Age and sex characteristics of the observation group

35–44 years		45–54 years		55–64 years		65–75 years (and senior)	
Male	Female	Male	Female	Male	Female	Male	Female
12	10	14	16	21	25	14	18

Table 2. Distribution of the type and location of malignant tumors among the patients of the study group

Localization / type of tumors	Number of patients
Tumors of the head / neck area	17
Intestinal tumors	21
Breast tumors	27
Oncohematological diseases	25
Non-Hodgkin's lymphomas	11
Tumors of the female genital area	29
Total	130

Table 3. Frequency of individual complaints among patients receiving anticancer chemotherapy

Type of complaint	Frequency of occurrence, %		
	Male	Female	Total
Pain in the jaws	34.4	15.9	24.6
Oral mucosa pain	67.2	85.5	76.9
Oral mucosa burning	95.1	89.9	92.3
Oral mucosa paresthesia	98.4	97.1	97.7
Dryness of oral mucosa	100.0	100.0	100.0
Decrease and / or inversion of taste sensations	100.0	100.0	100.0
Occurrence of angular cheilitis	39.3	21.7	30.0
Gum bleeding	95.1	97.1	96.2
Purulent from periodontal pockets	23.0	13.0	17.7
Formation of erosions and ulcers on oral mucosa	62.3	65.2	63.9
Mouth opening disorders	18.0	20.3	19.2
Disorders of swallowing	8.2	11.6	10.0

Based on the analysis of complaints reported during the examination by a dentist, it was found that pain in the jaws generally occurred among 24.6% of patients (34.4% of men and 15.9% - among women), soreness of the oral mucosa - 76.9% of patients (67.2% of men and 85.5% of women), which suggests the rational use of topical anesthetics in this group of patients to alleviate their condition. Special attention should be paid to the complaints of patients, which can be partially attributed to the signs of damage to the sensitive nerves and receptors of oral mucosa – burning sensation, paresthesia, taste disturbances (dysgeusia).

The burning sensation of oral mucosa in the study group generally was registered among 92.3% of patients (95.1% of males and 89.9% of females). Paresthetic sensations were observed among 97.7% of patients – 98.4% of men and 97.1% of women. Dysgeusia (pathological changes of taste sensation) in the form of decreased acuity of food taste or inversion of taste sensations was observed among all patients in the study group. Also, all patients noted dryness of oral mucosa after the starting of chemotherapy which may be explained by dysfunction of saliva production and its secretion. Among 30.0% of patients (39.3% male and 21.7% female) angular cheilitis developed which also caused discomfort. Almost all patients – 96.2%, showed bleeding gums, and there was no significant difference between the sexes – 95.1% of men and 97.1% of women. Pus from periodontal pockets was found among a small number of patients – 17.7%, but among male patients it occurred almost twice as often – 23.0%, compared to 13.0% among women. The formation of erosions and ulcers of oral mucosa was observed among more than half of patients – 63.9%, without a significant difference between the sexes – 62.3% of men and 65.2% of women. Complaints of dysfunction were less frequent but their presence indicated the complications severity of the patients' chemotherapy. These were open mouth disorders which were observed among 19.2% of patients (18.0% of men and 20.0% of women) and swallowing disorders – 10.0%, by distribution – 8.2% of male patients and 11.6 % – female.

Subsequently, an index assessment of dental status in patients of the study group was performed (Table 4). The intensity of dental caries in the study group was 13.7 ± 1.0 with a slight predominance among male patients (14.5±0.77), compared with female patients – 12.8±1.06. This level may be assessed as high. The value of the communal periodontal index CPI (Russell index) in the group was 2.3±0.2, among the male patients the condition of the periodontium was worse – 2.3±0.2 than among women – 2.1±0.2. Evaluation of the Green-Vermilion hygiene index found that in general in the study group the level of oral hygiene was unsatisfactory – 2.2±0.3, it was worse among men

– 2.3±0.3, better hygiene was among women – 1,9±0.5. The index of the area of dental plaque by Fedorov-Volodkina in the study group was 2.6±0.8; among the men the average area of plaque was also higher, so the index was 2.7±1.0, in women the values were lower – 2.4±0.4. Assessment of inflammation of the marginal periodontium showed the presence of an inflammatory process of moderate severity among a significant number of patients – 41.4±9.8% in the general study group, 45.9±11.5% among men and 41.4±9.8% among women.

Additionally, patients noted the presence of metal dentures in the oral cavity, the presence of destroyed to the root level teeth and the need for emergency dental care (acute pain, the presence of broken denttures, acute trauma of the oral mucosa. Thus, a total of 76.2% of patients in the study group had metal dentures of various types (single crowns, welded crowns, bridges, cantilever structures) in the oral cavity. Among them, the male patients had less quantity – 67.2% and significantly more women – 84.1%. Destroyed crowns of teeth and unremoved broken teeth roots were observed among 56.9% of patients, for male patients were more common – 63.9%, abovementioned problem was presented only among 50.7% of women (Table 5). The need for emergency dental care was observed among 13.1% of patients in the study group, 14.8% of male patients and 11.6% of female patients.

Analysis of anamnestic data revealed that patients during the year before hospitalization to the specialized oncology hospital had an average of 0.8±0.4 visits to the dentist per year, women applied to dentist almost twice as often – 1.1±0.5 visits per year and men – 0.4±0.2. Patients in the study group also rarely used additional personal care products (devices) for oral care – a total of 9.2%; such devices were used by 6.6% of male and 11.6% of female patients.

The obtained results of study indicate the presence of problems with the oral cavity among 100.0% of patients receiving antineoplastic chemotherapy at specialized oncological hospital, as well as the presence of a sufficiently high need for specialized dental treatment. The high frequency of pain sensations and accordingly the violation of their quality of life indicates the need for additional nonsteroidal anti-inflammatory drugs with analgesic effect prescription and the use of topical anesthetics for oral mucosa analgesia during meals. The obtained data coincide with the results of clinical studies of a number of authors from ex-USSR and far abroad. The appearance of pain in bone tissue may be perceived as a manifestation of a more serious complication in the form of aseptic osteonecrosis of the jaws or activation of sources of chronic odontogenic infection which requires additional diagnosis and appointment to x-ray examinations [3,4,11,12,15,18,24].

The appearance of hyposalivation among patients is an indication for the recommendation of frequent irrigation of the oral cavity with antiseptic solutions, the use of artificial lysozyme to prevent secondary lesions of the oral mucosa and periodontium. Xerostomia and changes in taste sensations among patients are indications for correction of their diet during chemotherapy. Food should be processed mechanically with fewer irritating and spicy components and certain spices can be used to enhance the taste, although this issue is poorly understood nowadays. The appearance of angular cheilitis at the stage of chemotherapy requires additional examination as such a complication may occur both due to the development of dysbiosis of the oral cavity and in the presence of a decrease in the height of the bite (interalveolar distance). The occurrence of erosive and ulcerative lesions of the oral mucosa requires additional dental treatment such as keratoplastics, antiseptics and medicines for cleaning erosive surfaces from fibrin-like plaque which quickly forms in the oral cavity and causes significant discomfort to the patient [14,18,19,22,23].

The data obtained during clinical examinations among group of patients indicate unsatisfactory oral hygiene during antineoplastic chemotherapy which is according to some authors data and is a significant risk factor for secondary lesions of oral mucosa (mucositis). Patients had high hygiene indices and presence of marginal periodontitis. In the absence of prior dental sanitation (before antitumor treatment) and instruction in oral care the status of hygiene among patients with the first signs of oral mucositis can only become worsen. Moreover, in the presence of temporary immunosuppression due to the use of cytostatics the conditions for the exacerbation of chronic infection are created, so 13.1% of patients in the study group needed urgent dental care. The low level of oral sanitation, the need for dynamic

Table 4. The results of the index assessment of dental status among patients receiving chemotherapy

Indicator/index	Value		
	Male	Female	Total
Caries intensivity	14.5±0.77	12.8±1.06	13.7±1.0
CPI	2.3±0.2	2.1±0.2	2.3±0.2
Green-Vermilion	2.3±0.3	1.9±0.5	2.2±0.3
Fedorov-Volodkina	2.7±1.0	2.4±0.4	2.6±0.8
PMA,%	45.9±11.5	38.6±8.7	41.4±9.8

Table 5. Results of clinical examination and analysis of anamnestic data

	Value		
	Male	Female	Total
The presence of metal dental crowns and dentures,%	67.2	84.1	76.2
The presence of broken teeth (roots),%	63.9	50.7	56.9
The need for emergency dental care,%	14.8	11.6	13.1
Number of visits to the dentist in the previous year	0.4±0.2	1.1±0.5	0.8±0.4
Sanitation of the oral cavity before hospitalization to oncological hospital,%	0,0	0.0	0.0
The use of additional devices for personal oral hygiene,%	6.6	11.6	9.2

monitoring of the organs and tissues of the oral cavity, the need for prior hygiene training for cancer patients and the emergence of acute pain of dental origin suggest the rationality of involving dentists to the team of health care on an ongoing basic complex rehabilitation of patients with neoplasms [5,6,12,13,18].

Conclusions. A clinical examination of the oral cavity among 130 patients (61 men and 69 women) who were receiving anticancer chemotherapy in an oncology hospital revealed that such patients had poor oral hygiene and needed specialized dental treatment. Burning sensation of oral mucosa was present among 92.3% of patients, paresthesia – among 97.7%, taste disturbance and xerostomia – all patients. Among 30.0% there was angular cheilitis, among 96.2% bleeding gums, pus from periodontal pockets among – 17.7%, the formation of erosions and ulcers of oral mucosa – among 63.9%, mouth opening disorders – among 19.2 % of patients and swallowing disorders – 10.0%. The intensity of dental caries was 13.7±1.0, CPI index – 2.3±0.2, Green-Vermilion index – 2.2±0.3, Fedorov-Volodkina index – 2.6±0, 8; PMA index – 41.4±9.8%. 76.2% of patients had metal dentures, destroyed tooth crowns and unremoved roots – 56.9%. The need for emergency dental care was among 13.1% of patients in the study group. During the year before hospitalization, patients had 0.8±0.4 visits to the dentist per year, rarely used additional personal hygiene products for oral care – only 9.2%.

Data from Research Work. The work was performed in accordance with the plan of research works of the State Higher Educational Institution "Uzhgorod National University" and is a fragment of the scientific theme of the dental faculty: "Clinical-experimental substantiation of the application of modern dental technologies, expert evaluation of the quality of treatment and prevention of major dental diseases" (state registration No. 0113U003611).

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SUMMARY

DENTAL STATUS FEATURES IN PATIENTS DURING ANTI-CANCER CHEMOTHERAPY (TRANSCARPATHIAN ANTITUMOR CENTER EXPERIENCE)

[1]Helei N., [1]Kostenko E., [2]Rusyn A., [1]Helei V.

Uzhgorod National University, [1]Dental faculty, [2]Medical faculty; Ukraine

One of the most common complications of complex anticancer therapy is the development of various lesions of the oral cavity, including mucositis, which adversely affects the quality of life of the patient, limits the dose of chemotherapy and radiotherapy, and further adversely affects the effectiveness of complex therapy.

Objective - to investigate the dental status of patients who are in anticancer chemotherapy and radiotherapy through clinical examination and calculation hygienic indices.

During the study, the oral cavity was examined in 130 patients from 2015-2020, during the examination the dental status was registered and complaints were recorded. The dental status of patients on antitumor chemotherapy and radiotherapy by the method of clinical examination and calculation of hygienic indices (CSR (caries: sealed: removed), CPI index, Green Vermilion index, Fedorov-Volodkina index) was studied.

A clinical examination of the oral cavity of patients who were on anticancer therapy in a cancer hospital revealed that the patients had poor oral hygiene and needed specialized dental treatment. Burning of the oral mucosa was present in 92.3% of patients, paresthesia - in 97.7%, taste disturbance and xerostomia - in all patients. In 30.0% there was angular cheilitis, in 96.2% bleeding gums, pus from periodontal pockets in - 17.7%, the formation of ulcers of the oral mucosa - 63.9%, mouth opening disorders - in 19.2%. The need for dental care was in 13.1% of patients in the study group. During the year before hospitalization, patients had 0.8±0.4 visits to the dentist per year, rarely used additional personal hygiene products for oral care - in 9.2%.

The results indicate the presence of oral problems in 100.0% of patients receiving specialized antitumor chemotherapy and radiotherapy, as well as the presence of a sufficiently high need for specialized dental treatment.

Keywords: neoplasm, patients, treatment, oral cavity, examination, indexes.

РЕЗЮМЕ

ОСОБЕННОСТИ СТОМАТОЛОГИЧЕСКОГО СТАТУСА ПАЦИЕНТОВ ВО ВРЕМЯ ПРОТИВОРАКОВОЙ ХИМИОТЕРАПИИ (ОПЫТ ЗАКАРПАТСКОГО ПРОТИВООПУХОЛЕВОГО ЦЕНТРА)

[1]Гелей Н.И., [1]Костенко Е.Я., [2]Русин А.В., [1]Гелей В.М.

Ужгородский национальный университет, [1]стоматологический факультет; [2]медицинский факультет, Украина

Одним из наиболее частых осложнений комплексной противоопухолевой терапии является развитие различных поражений полости рта, в том числе мукозитов, что отрицательно сказывается на качестве жизни пациента, ограничивает дозу химиотерапии и лучевой терапии, а в дальнейшем отрицательно влияет на эффективность комплексной терапии.

Цель исследования - изучить стоматологический статус пациентов, проходящих курс противоопухолевой химиотерапии и лучевой терапии, путем клинического осмотра и расчета гигиенических показателей.

В ходе исследования полость рта была обследована у 130 пациентов за 2015–2020 годы, в ходе обследования регистрировался стоматологический статус и фиксировались жалобы. Изучен стоматологический статус пациентов на противоопухолевой химиотерапии и лучевой терапии методом клинического обследования и расчета гигиенических показателей (CSR (кариес: пломбирование: удалено), индекс CPI, индекс Green Vermilion, индекс Федорова-Володкиной).

Клиническое обследование полости рта пациентов, которые проходили противоопухолевую терапию в онкологической больнице, показало, что пациенты не соблюдали гигиену полости рта и нуждались в специализированном стоматологическом лечении. Жжение слизистой оболочки полости рта имело место у 92,3% пациентов, парестезия – у 97,7%, нарушение вкуса и ксеростомия – у всех пациентов. Угловой хейлит – у 30,0%, кровоточивость десен – у 96,2%, гной из пародонтальных карманов – у 17,7%, образование язв слизистой оболочки полости рта - у 63,9%, нарушения открывания рта – у 19,2%. Потребность в стоматологической помощи была у 13,1% пациентов исследуемой группы. В течение года до госпитализации пациенты посещали стоматолога 0,8±0,4 в год, редко использовали дополнительные средства личной гигиены для ухода за полостью рта - в 9,2%.

Результаты свидетельствуют о наличии проблем с ротовой полостью у 100% пациентов, получающих специализированную противоопухолевую химиотерапию и лучевую терапию, а также о наличии достаточно высокой потребности в специализированном стоматологическом лечении.

რეზიუმე

პაციენტების სტომატოლოგიური სტატუსის თავისებურებები კიბოს საწინააღმდეგო ქიმიოთერაპიის დროს (ზაკარპატიეს კიბოს საწინააღმდეგო ცენტრის გამოცდილება)

[1]ნ.გელეი, [1]ე.კოსტენკო, [2]ა.რუსინი, [1]ვ.გელეი

უჟგოროდის ეროვნული უნივერსიტეტი, [1]სტომატოლოგიის ფაკულტეტი; [2]მედიცინის ფაკულტეტი, უკრაინა

კიბოს საწინააღმდეგო კომპლექსური თერაპიის ერთ-ერთ გართულებას წარმოადგენს პირის ღრუს სხვადასხვა დაზიანების, მათ შორის – მუკოზიტების, განვითარება, რაც უარყოფითად აისახება პაციენტის სიცოცხლის ხარისხზე, ზღუდავს ქიმიო- და სხივური თერაპიის დოზას, მომავალში კი უარყოფითად მოქმედებს კომპლექსური თერაპიის ეფექტურობაზე.

კვლევის მიზანს წარმოადგენდა კლინიკური დათვალიერების და ჰიგიენური მაჩვენებლების გამოთვლის გზით სტომატოლოგიური სტატუსის შეფასება პაციენტებისა, რომლებიც იტარებდნენ კიბოს საწინააღმდეგო ქიმიო- და სხივური თერაპიის კურსს.

2015-2020 წწ. პერიოდში გამოკვლეულია 130 პაციენტის პირის ღრუ; კვლევის პროცესში რეგისტრირდებოდა სტომატოლოგიური სტატუსი და ფიქსირდებოდა ჩივილები. ქიმიოთერაპიის და სხივური თერაპიის კურსის ქვეშ მყოფ პაციენტებში კლინიკური კვლევის და ჰიგიენური გამოთვლების მეთოდით შესწავლილია სტომატოლოგიური სტატუსი (CSR: კარიესი, დაბჟენა, ამოღებული), ინდექსი CPI, ინდექსი Green Vermilion, ფიოდოროვა-ვოლოდკინას ინდექსი.

პირის ღრუს გამოკვლევამ პაციენტებისა, რომლებსაც კიბოს საწინააღმდეგო თერაპია უტარებოდათ ონკოლოგიურ საავადმყოფოში,აჩვენა,რომ პაციენტები არ იცავდნენ პირის ღრუს ჰიგიენას და საჭიროებდნენ სპეციალიზებულ სტომატოლოგიურ მკურნალობას. პირის ღრუს წვა აღენიშნებოდა პაციენტების 92,3%-ს, პარესთეზია – 97,7%-ს, გემოს შეგრძნების დარღვევა და ქსეროსტომია – ყველა პაციენტს,ჰეილიტი – 30%-ს, სისხლდენა ღრძილებიდან – 96,2%-ს, ჩირქი პაროდონტული ჯიბეებიდან – 17,7%-ს, წყლულები პირის ღრუს ლორწოვან გარსზე – 63,9%-ს, პირის გაღების დარღვევები – 19,2%-ს, სტომატოლოგიური დახმარება ესაჭიროებოდა გამოკვლეულ პაციენტთა 13,1%-ს; ჰოსპიტალიზაციამდე 1 წლის განმავლობაში სტომატოლოგთან ვიზიტი ჰქონდა 0,8±0,4 პაციენტს, პირის ღრუს ჰიგიენის დამატებითი საშუალებები გამოიყენებოდა იშვიათად – 9,2%-ში.

კვლევის შედეგები მიუთითებს პირის ღრუს პრობლემების არსებობის შესახებ პაციენტთა 100%-ში,რომლებიც იტარებდნენ სპეციალიზებულ კიბოს საწინააღმდეგო ქიმიო- და სხივურ თერაპიას, ასევე, სპეციალიზებული სტომატოლოგიური მკურნალობის ჩატარების მაღალი ხარისხით გამოხატულ საჭიროებაზე.

THE CORRELATION OF THE CHEMICAL COMPOSITION OF ENAMEL AND ORAL FLUID IN PATIENTS WITH A WEDGE-SHAPED DEFECT AND INTACT TEETH

Yarova S., Zabolotna I., Genzytska O., Yarov Yu., Makhnova A.

Donetsk national medical university, Kramatorsk, Ukraine

Current research works confirm a multifactorial etiology for non-carious cervical lesions (NCCLs) with the patient's individual characteristics which are responsible for varying degrees of tissue loss [1-3]. The formation of NCCLs of morphological type III (wedge shape (WS)) is associated with the wear of the hard dental tissues which reflects the cumulative effects of causal factors in the oral cavity [4,5]. The chemical theory explains WS occurrence by the demineralizing action of acids which dissolve enamel minerals [6]. The exposure to acids in combination with insufficient salivation rate leads to increased dissolution [7]. The effects of these and other interactions promote constant ion / substance exchange and reorganization within the tooth and on the surface of the tooth [8]. Saliva is one of the important mechanisms that protect against erosive wear [5]. Defective pellicle which is formed in case of the disturbance of saliva quantitative and qualitative parameters contributes to the development of pathology of the hard dental tissues [6]. The content of ions in the oral fluid (OF) affects the balance of the processes of demineralization and remineralization in the hard dental tissues, the permeability of the enamel to mineral substances [5,9,10]. Strictly defined concentrations of the chemical elements that make up the inorganic part of enamel and dentin ensure their hardness, resistance to environmental influences and the corresponding direction of biochemical transformations [11]. Thus, according to the macro- and microelement state of the hard dental tissues, their mineralization can be estimated [12].

Teeth wear varies widely from person to person emphasizing the need to identify the risk factors that explain this difference [5]. It is very important that all potential etiologic factors are identified and considered while examining the patients with NCCLs [3]. Some researchers believe that it is necessary to study the chemical composition of both dental tissues and biological fluids that wash the tooth in order to prevent demineralization processes [13]. Therefore, saliva is a perspective substance for the early detection of oral diseases [14]. If there is correlation between the indicators, OF composition it will be possible to think about enamel mineral state.

The purpose of the study is to determine OF chemical composition and mineralization level of patients with WS and clinically intact hard tissues, conduct correlation between the indicators of cervical enamel and OF.

Material and methods. The clinical and laboratory studies involved 22 patients (13 men, 9 women) without any somatic pathology (mean age 23.44+/-4.51 years). There were such criteria for their becoming the part of the groups as DMFT = 0, the absence of the diseases of periodontal tissues and oral mucosa, orthopedic and orthodontic structures in the oral cavity. Two groups were formed (11 patients each) to accomplish the assigned tasks based on the results of the clinical examination: case group– the patients with wedge-shaped defects (2.81+/-0.73) classified according to their morphology and depth [4]; control group the patients with clinically intact hard tissues. The work was performed in accordance with the principles of WMA Declaration of Helsinki "Ethical Principles for Medical Research involving Human Subjects", Order No. 690 of the Ministry of Health of Ukraine (dated September 23, 2009) and approved by Bioethics Commission of Donetsk National Medical University. Before being involved in the survey all the participants were provided with written informed consent.

The material for laboratory studies was unstimulated OF which was collected from 10 till 12 o'clock. Brushing teeth, eating, drinking, and smoking were excluded 2 hours before the beginning of the research. Previously, the oral cavity was thoroughly rinsed with distilled water twice. OF was collected into a sterile plastic test tube with a lid by spitting in the amount of 20 ml and then it was examined in the laboratory of the Depart-