GEORGIAN MEDICAL NEWS

ISSN 1512-0112

No 9 (318) Сентябрь 2021

ТБИЛИСИ - NEW YORK

ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

No 9 (318) 2021

Published in cooperation with and under the patronage
of the Tbilisi State Medical University

Издается в сотрудничестве и под патронажем
Тбилисского государственного медицинского университета

გამოიცემა თბილისის სახელმწიფო სამედიცინო უნივერსიტეტთან
თანამშრომლობითა და მისი პატრონაჟით

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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GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией и Международной академией наук, образования, искусств и естествознания (IASEIA) США с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения.

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GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

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Ежемесячный совместный грузино-американский научный электронно-печатный журнал
Агентства медицинской информации Ассоциации деловой прессы Грузии,
Международной академии наук, индустрии, образования и искусств США.
Издается с 1994 г., распространяется в СНГ, ЕС и США

Website:
www.geomednews.org

The International Academy of Sciences, Education, Industry & Arts. P.O.Box 390177,
Mountain View, CA, 94039-0177, USA. Tel/Fax: (650) 967-4733

Версия: печатная. **Цена:** свободная.
Условия подписки: подписка принимается на 6 и 12 месяцев.
По вопросам подписки обращаться по тел.: 293 66 78.
Контактный адрес: Грузия, 0177, Тбилиси, ул. Асатиани 7, IV этаж, комната 408
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По вопросам размещения рекламы обращаться по тел.: 5(99) 97 95 93

GEORGIAN MEDICAL NEWS
Monthly Georgia-US joint scientific journal published both in electronic and paper formats of the Agency of Medical Information of the Georgian Association of Business Press; International Academy of Sciences, Education, Industry and Arts (USA).
Published since 1994. Distributed in NIS, EU and USA.

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При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

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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.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

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In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

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ავტორთა საყურადღებოდ!

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1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx.** შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

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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:

GEORGIAN MEDICAL NEWS
No 9 (318) 2021

ACHIEVEMENT OF CLINICAL REMISSION IN PATIENTS WITH RHEUMATOID ARTHRITIS DEPENDING ON THE ACCP- AND RF-SEROLOGICAL STATUS

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Achievement of clinical remission is one of the main goals in the treatment of patients with rheumatoid arthritis (RA) [3,21]. Many studies have been conducted to identify key factors influencing the frequency of disease activity lowering and remission achievement. Among them, the serological variant of RA in the onset of the disease is one of the determining predictors of the disease course [13,15,19,25]. Thus, the presence of antibodies to cyclic citrullinated peptide (ACCP) and high titers of rheumatoid factor (RF) in the blood of patients with RA are factors of the unfavorable prognosis of the disease, along with other determinants such as young age, increased erythrocyte sedimentation rate (ESR), edema of more than 20 joints, extraarticular manifestations [9,27].

Most researchers agree that the frequency of RA remission is higher in seronegative patients [4,12,13]. However, other authors in their publications [5,22] describe a significantly better response of ACCP-positive patients to methotrexate (MTX) treatment, including achieving remission compared with placebo, in contrast to seronegative patients whose treatment efficacy was comparable to placebo.

Literature data about the effect of ACCP and RF seropositivity on the clinical response to treatment of RA are contradictory. Thus, in the scientific work of Fedele A.L. [6] a comparable frequency of remission achievement in patients seronegative or seropositive for both markers of the disease was showed. Simultaneously, the results of IMPROVED study showed a significantly lower frequency of remission in patients with ACCP [26].

There is no consensus in scientific publications regarding the connection between the serological variant of RA and the start time of clinical remission. Thus, according to J. E. Pope data [16], the simultaneous presence of ACCP and RF in the blood of patients with RA is associated with a faster onset of clinical remission. According to other authors [14,28] the ACCP presence is a predictor of the aggressive disease course with a delayed time of remission.

The prognostic value of not only ACCP presence but also its level was studied in scientific works of Lindqvist E. and Weversde Boer K. [14,26]: the direct correlation between ACCP titer and RA progression was found. In the work of Tsutomu Takeuchi [23], researchers claim that high titers of both serological markers (ACCP and RF) in the onset of the disease are associated with a worse response to treatment. Other researchers have not confirmed this influence [7].

Consequently, there is no unanimity in the literature regarding the correlation between the presence or ACCP/RF level and the frequency and onset of remission during disease modifying antirheumatic drug (DMARD) treatment. This encouraged us to conduct our own research to study this issue.

The aim: to study the correlation between the presence/absence of serological markers of RA (ACCP, RF) and the frequency and timing of clinical remission of RA during DMARD therapy; to analyze the relationship between ACCP or RF titers and the possibility of achieving RA remission.

Material and methods. 128 patients with RA were enrolled in the study. Inclusion criteria were the following: participant at least 18 years of age, who provided written informed consent and clinically diagnosed with RA by the criteria of the American Rheumatological Association (ARA, 1987) [1], discontinuation of previous DMARD therapy at least 3 months before the study, the absence of intra-articular and intramuscular injections of prolonged GC at least a month before the study. Exclusion criteria were: a history of the other rheumatic diseases, psychoemotional disorders, alcoholism, pregnancy and lactation during the study period, severe liver, kidney, lung and other organ diseases that could significantly affect the pharmacodynamics of the drugs and the effectiveness of treatment, as well as those who did not appear on 3 visits (after 6, 12 and 24 months).

This observational descriptive cross-sectional monocentric study was conducted at the rheumatology departments of the Alexander Clinical Hospital in Kyiv, Ukraine. The duration of observation was 2 years. Analysis of RA activity and assessment of remission were performed after 6, 12 and 24 months of treatment. At each stage of the study, we counted the number of painful, swollen joints, assessed changes in the patient's condition on a visual analog scale (VAS), determined the level of ESR and CRP, as well as disease activity on scale Disease activity score 28 (DAS28). According to EULAR recommendations, the criterion of clinical remission [8] was considered to be a decrease in DAS28 below the level of 2.6. The early remission was considered to have been achieved during the first 6 months of therapy; stable - remission, which persisted throughout the observation period. The rate of remission in different groups of patients was assessed by determining the ratio of the rate of early remission to all cases of remission in the analyzed period.

DMARD treatment included the following drugs: MTX (7.5-20 mg/week, on average ─ 11.6 ± 0.29 mg/week, 77 patients), leflunomide (LEF) (10-20 mg/day, on average ─ 19.2 ± 0.28 mg/day, 18 patients), sulfasalazine (SS) (2 g/day, 12 patients) or hydroxychloroquine (HC) 200-400 mg/d (4 patients). Combined DMARD therapy (MTX + SS, MTX + HC, MTX + LEF, LEF + HC, LEF + SS) was received by 17 patients. Before DMARD administration, 118 patients (92.2%) did not receive any DMARD, in other patients DMARD therapy (mostly MTX) was canceled due to the side effects 3 months before the study inclusion. Glucocorticoids (GC) were prescribed according to standard indications in initial doses from 2.5 to 30 mg/day in recalculation on oral prednisolone with subsequent dose reduction until discontinuation.

The RF titer was determined by the latex agglutination method (Humatex, Germany). Reference values <20 IU/ml. The level of anti-CCP in the blood serum was determined by enzyme-linked immunosorbent assay (ELISA) using a standard kit from IBL-Hamburg (Germany) according to the manufacturer's instructions. The diagnostic limit of anti-CCP was ≥15 U/ml, the maximum value was ≥ 345U/ml. The RF titer was considered low when below 55 IU/ml, high - more than 160 IU/ml, respectively; the anti-CCP titer <42 U/ml was considered low, >100 U/ml - high [Takeuchi T., 2017].

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and Good Clinical Practice guidelines, and was approved by the appropriate institutional review boards.

IBM SPSS 22.0 software was used for statistical analysis. Demographics and clinical characteristics were described as

numbers (%) and as median (min–max). The values were compared between groups of RA patients using nonparametric test (Mann-Whitney). To assess the probability of the difference for frequencies the criterion $\chi 2$, including with Yates correction, and Fisher's exact method were used. When using the criterion χ^2 to assess the reliability of the difference used tabular values. P-value < 0.05 was considered to represent statistical significance.

Results and discussion. The mean age of the included patients ranged from 23 to 81 years, disease duration - 18.4±3.18 months (from 0.5 to 360 months), predominantly females (74.2%). Early RA (≤2 years) in 81.6% of cases was observed (95 patients). In all patients, the joint status indicators, levels of C-reactive protein (CRP), RF and ACCP before DMARD therapy were evaluated. 73 (57.0%) persons were seropositive by RF, 83 (64.8%) - by anti-CCP.

According to the results of serological analysis, patients were divided into four groups: with both ACCP and RF (ACCP + RF +, n=64), with one of the markers - ACCP (ACCP + RF-, n=19) or RF (ACCP- RF+, n=9) and with negative results (ACCP-RF-, n=36).

The general characteristics of the patients who were included in the analysis are shown in Table 1.

According to table results, there were no significant differences between the analyzed groups in age, sex, RA duration, disease activity, radiological changes and prescribed therapy (p>0.05). There was a tendency to slightly higher clinical activity (according to DAS28) in seropositive patients. The association between the presence of ACCP and higher clinical and laboratory activity of RA was published in other scientific works [10,11,17,18].

During the 2-year follow-up, clinical remission was achieved in a total of 27 (21.1%) patients, including early remission in 25 (19.5%), stable in 21 (16.4%) patients, remission occurred rapidly in 25 (92.6% of persons who achieved remission) patients. Parameters of remission depending on the serological status are shown in Table 2.

These data suggest that clinical remission was achieved three times more often in ACCP-negative patients (36.1% in ACCP-RF- group compared with 12.5% in ACCP+RF+group, $\chi 2=7.74$, $p<0.05$; and in 33.3% ACCP-RF+ patients, that is significantly more than in ACCP + RF + patients, $\chi 2=4.55$, $p <0.05$). Early remission was also more common in the group of patients without ACCP (respectively $\chi 2=10.7$, $p<0.01$ and $\chi 2=6.69$, $p<0.05$). The same tendency was shown in frequency of stable remission achievement ($\chi 2=7.32$ and 3.98 in individuals with double seronegativity compared with the groups ACCP + RF + and ACCP + RF-, respectively, $p <0.05$).

Table 1. Clinical and demographic, laboratory and radiological data of patients with seronegative and seropositive variants of RA before DMARD treatment

Indicators	Groups of patients with different serological variants of RA			
	ACCP+RF+ (n=64)	**ACCP + RF - (n=19)**	**ACCP - RF + (n=9)**	**ACCP- RF - (n=36)**
Female, %	78.1	84.2	88.9	86.1
Male, %	21.9	15.8	11.1	13.9
Age, years Median (min–max) means ± SD	 50 (28-70) 50.7±10.6	 52 (25-69) 50.9±12.7	 61 (24-81) 57,6±15.5	 56 (23-70) 56,8±9.71
RA duration, mth. Median (min–max) means ± SD	 14 (1-120) 19.8±21.7	 7,5 (2-30) 15.9±21.1	 4 (1-120) 26.7±41.3	 8 (0.5-360) 26.2±61.1
DAS28 Median (min–max) means ± SD	 6,14 (3.52-7.76) 5.99±0.99	 6,25 (3.26-8.30) 6.06±1.34	 5,20 (3.92-7.06) 5.61±0.99	 5,37 (3.23-7.46) 5.41±1.18
SHS, points Median (min–max) means ± SD	 16 (4-124) 14.7±10.9	 13 (8-124) 15.3±12.5	 22 (6-99) 32.5±35.3	 19 (2-50) 20.0±12.1
DMARD-native pts, %	89	94.7	88.8	91.6
DMARD therapy, % MTX LEF SS HC Combined DMARD	 37 10 8 1 8	 11 2 1 3 2	 6 1 0 0 2	 23 5 3 0 5
GC per os, %	76.5	73.6	66.6	61.1
Average GC dose, mg/d Median (min–max) means ± SD	 15 (5-30) 13.8±4.75	 15 (10-30) 17.5±8.44	 10 (7.5-15) 11.5±3.0	 10 (7.5-25) 11.8±6.65

note: SHS – radiological changes by Sharp-van der Heijde score

Table 2. Indicators of remission depending on the serological status of RA patients

Group of patients	Remission, n (%)	Early remission, n (%)	Stable remission, n (%)	The rate of achievement remission, %	Remission in combined groups, %
ACCP+RF+	8 (12.5%)	6 (9.4%)	6 (9.4%)	75%	81.8%
ACCP+RF-	3 (15.8%)	3 (15.8%)	2 (10.5%)	66.6%	
ACCP-RF+	3 (33.3%)*	3 (33.3%)*	2 (22.2%)	66.6%	81.3%
ACCP-RF-	13 (36.1%)*	13 (36.1%)**	11 (30.5%)*&	84.6%	

*note: p<0.05, ** p<0.01 compared with ACCP + RF +group of patients;*
& p<0.05 compared with ACCP + RF- group of patients

Table 3. Frequency of remission depending on the titer of serological markers of RA

Titres of serological markers	Patients who achieved remission	Patients who didn't achieve remission
RF titres, IU/ml Median (min–max) means±SD	384 (12-768)z 257.9±233.8	192 (12-768) 293.2±257.3
Anti-CCP titres, U/ml Median (min–max) means±SD	304 (82-360) 240.8±115.5	183 (15.5-371.1) 187.8±118.4

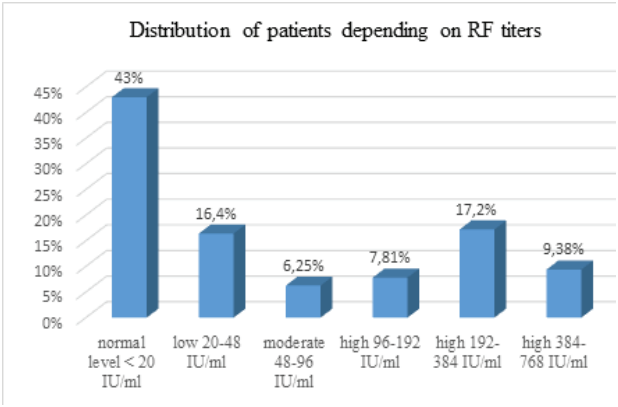

Fig. 1. Distribution of RF titers before the study

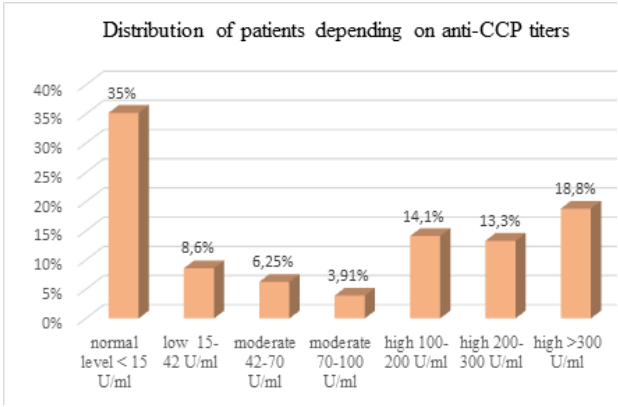

Fig. 2. Distribution of anti-CCP titers before the study

Table 4. Frequency of remission in patients with low and high RF and anti-CCP titers

	Patients who achieved remission	Patients who didn't achieve remission
Low titres of RF (n=21), n (%)	5 (23.8)	16 (76.2)
High titres of RF (n=45), n (%)	6 (13.3)	39 (86.7)
Low titres of anti-CCP (n=11), n (%)	0 (0)	11 (100)
High titres of anti-CCP (n=59), n (%)	7 (11.8)	52 (88.2)

At the same time, the rate of remission (frequency of early remission in the structure of general remission) in four analyzed groups did not differ significantly and was 75%, 66.6%, 66.6% and 84.6%, respectively. Summarizing the results, it was found that in the combined group of patients positive for anti-CCP the percentage of patients who achieved remission did not differ from this parameters in the combined group of anti-CCP-negative patients (81.8% and 81.3%, respectively).

The influence of anti-CCPand RF level on the frequency of remission was analyzed. It was found that in the group of seropositive patients achieved remission, the anti-CCP

titer (240.8±38.5) did not differ significantly from this indicator in the group of patients who did not achieve remission (187.8±13.7, p>0.05). The relationship between the RF titer and the frequency of remission also wasn't found (Table 3).

Prior to the study, subgroups of RA patients depending on the titers of RF and anti-CCP were formed (Fig. 1 and 2).

As can be seen from the diagrams, low titers of RF and anti-CCP (including indicators below the reference values) were respectively in 43 and 35% of patients, high - in 34.4 and 46.1% of persons. This distribution of the "low" and "high" titers of RA serological markers are indicated in the scientific work of Takeuchi T. [Takeuchi T., 2017]. According to the author data, the percentage of high levels of RF and anti-CCP was observed in approximately the same number of patients with RA: 33 and 58% of patients, respectively.

Among 73 RF-positive patients, 21 individuals had low RF titers (<55 IU/ml IU/ml), 45 - high (> 160 IU/ml). Low levels of anti-CCP (<42 U/ml) were found in 11 patients, high (> 100 U/ml) - in 59. The results of the assessment of the dependence of remission on RF and anti-CCP level are presented in Table 4.

As can be seen from the table, among 21 seropositive patients with low RF levels, five achieved remission, which is 10% more often compared with the alternative group, however, the difference is insignificant (p>0.05). In the group of anti-CCP-positive patients no any patient with low antibody levels achieved remission, simultaneously in the comparison group RA activity decreased below 2.6 in seven individuals (p>0.05). Thus, according to our data, there was no correlation between the level of RF/anti-CCP and the frequency of remission.

Literature data [3,16] indicate that the frequency of clinical remission in patients with RA ranges from 17 to 33%, depending on the design of the study, including the use of biological treatment. According to the results of a recent systematic review and meta-analysis [3], which included data from 31 studies (82,450 patients with RA) from scientometric databases MEDLINE, EMBASE, and Scopus, the remission rate ranged from 17.2% to 23, 5% (gradually increasing from 3 to 24 months of treatment), which agrees with our results: about 22% of patients (33% seronegative, 12% - seropositive) achieved remission during 6 months of DMARD therapy.

The effect of serological status on the possibility of remission has been studied by several scientists. In some studies [2], the frequency of remission did not depend on the serological variant of RA. According to other authors [16] most patients in remission were ACCP-positive (43.5% of seropositive and 32.4% of seronegative patients with RA reached remission). The opposite conclusion is found in the work of Rönnelid J. et al. [19]: the authors of the publication consider ACCP-positive status to be prognostically unfavorable for disease progression. Thus, according to a 5-year follow-up, the progression of RA was more pronounced in this category of patients. Van der Helm-van Mil A.H. [24] in their scientific work also argue that remission is less likely to occur in the presence of ACCP in the blood of patients with RA.

Our results also show a higher frequency of clinical remission (including early) while using non-biological DMARDs in seronegative (by ACCP and/or RF) patients compared with ACCP-positive patients, including patients positive for both markers. One third of ACCP-negative patients had sustained remission during the whole 2-year follow-up period, while in the comparison groups stable remission was observed three times less often.

The time of onset of clinical remission depending on the serological variant of RA was studied in the work of Pope J.E. [16]. Thus, seropositive (by ACCP and RF) patients were able to achieve remission significantly faster than seronegative patients. Other authors [13] argued that the ACCP presence causes not only a decrease in frequency but also a prolongation of remission start. In our work, no significant differences in the timing of remission in patients with different serological status were found.

High ACCP titers in the onset of the disease, according to Miriovsky B.J. scientific results [15] reduce the likelihood of RA remission, while data from Korean researchers [20] state the opposite: most patients in remission were doubly seropositive. According to our observations, the levels of ACCP and RF in patients who achieved remission did not differ from those in patients who failed to achieve it.

Conclusions. Within 2 years of follow-up, clinical remission by DAS28, including early remission, in RA patients receiving traditional synthetic DMARDs is achieved about three times more often in anti-CCP negative patients. Stable remission is probably more common in patients who are negative for both markers - RF and anti-CCP. The rate of remission (the ratio of early one in the structure of the total) does not depend on the serological variant of the disease. The frequency of clinical remission does not depend on the titer of anti-CCP and RF in the onset of the disease.

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SUMMARY

ACHIEVEMENT OF CLINICAL REMISSION IN PATIENTS WITH RHEUMATOID ARTHRITIS DEPENDING ON THE ACCP- AND RF-SEROLOGICAL STATUS

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In this clinical study, the effect of serological status of rheumatoid arthritis (RA) on the possibility and timing of clinical remission while taking the main non-biological disease modifying anti-rheumatic drugs (DMARD) was analyzed. The relationship between presence and levels of antibodies to cyclic citrullinated peptide (ACCP) and/or rheumatoid factor (RF) and remission in RA has also been studied. It was found that the frequency of remission, including early one (during the first 6 months of treatment), is three times higher in ACCP negative patients with RA. The rate of remission (ratio of early to total remission) does not depend on the serological status: about two thirds of patients in all analyzed groups achieve remission in the first 6 months of DMARD therapy. ACCP and RF titers in the onset of the disease do not influence the possibility of remission achievement.

Keywords: rheumatoid arthritis, serological status, clinical remission, DMARD therapy.

РЕЗЮМЕ

ВОЗМОЖНОСТЬ ДОСТИЖЕНИЯ КЛИНИЧЕСКОЙ РЕМИССИИ У БОЛЬНЫХ РЕВМАТОИДНЫМ АРТРИТОМ В ЗАВИСИМОСТИ ОТ АНТИТЕЛ К ЦИКЛИЧЕСКОМУ ЦИТРУЛЛИНИРОВАННОМУ ПЕПТИДУ И РЕВМАТОИДНОГО ФАКТОРА СЕРОЛОГИЧЕСКОГО СТАТУСА

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В исследовании проанализировано влияние серологического статуса больных ревматоидным артритом (РА) на возможность и время наступления клинической ремиссии при приеме основных небиологических базисных препаратов. Изучена связь между наличием и уровнем антител к циклическому цитруллинированному пептиду (аЦЦП) и/или ревматоидному фактору (РФ) и ремиссией при РА. Установлено, что частота достижения ремиссии, в том числе ранней (в течение первых 6 месяцев лечения) в три раза выше у больных РА, негативных по аЦЦП. Скорость наступления ремиссии (соотношение ранней в структуре общей) не зависит от серологического варианта заболевания: около двух третей пациентов во всех анализируемых группах достигают ремиссии в первое полугодие базисной терапии. Титры аЦЦП и РФ в дебюте заболевания не влияют на вероятность достижения ремиссии.

რეზიუმე

კლინიკური რემისიის მიღწევის შესაძლებლობა პაციენტებში რევმატოიდული ართრიტით ციკლური ციტრულინირებული პეპტიდის და რევმატოიდული ფაქტორის მიმართ ანტისხეულებისაგან დამოკიდებულებით

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კვლევაში გაანალიზებულია რევმატოიდული ართრიტით დაავადებული პაციენტების სეროლოგიური სტატუსის გავლენა კლინიკური რემისიის დადგომის შესაძლებლობასა და ვადაზე ძირითადი არაბიოლოგიური ბაზისური პრეპარატების მიღების პირობებში. შესწავლილია კავშირი ციკლური ციტრულინირებული პეპტიდის და/ან რევმატოიდული ფაქტორის მიმართ ანტისხეულებსა და რევმატოიდული ართრიტის რემისიას შორის. დადგენილია, რომ რემისიის მიღწევის სიხშირე, მათ შორის, ადრეული რემისიის, მკურნალობის პირველი ექვსი თვის განმავლობაში, სამჯერ უფრო მაღალია ციკლური ციტრულინირებული პეპტიდის მიხედვით უარყოფით პაციენტებში რევმატოიდული ართრიტით. რემისიის დადგომის სიჩქარე (ადრეული რემისიის თანაფარდობა საერთო რემისიის სტრუქტურაში) არაა დამოკიდებული დაავადების სეროლოგიურ ვარიანტზე: ყველა გაანალიზებულ ჯგუფში პაციენტების დაახლოებით 2/3 რემისიას აღწევს ბაზისური თერაპიის პირველ ექვს თვეში. ციკლური ციტრულინირებული პეპტიდის და/ან რევმატოიდული ფაქტორის ანტისხეულების ტიტრი დაავადების დებიუტში არ მოქმედებს რემისიის მიღწევის ალბათობაზე.