

## MORPHOLOGICAL FEATURES OF GASTROPATHY IN RHEUMATOID ARTHRITIS

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### SUMMARY

Introduction. The article provides data on the incidence of gastropathy in patients with rheumatoid arthritis (RA) receiving therapy with non-selective and selective non-steroidal anti-inflammatory drugs (NSAIDs), which are the most popular means of relieving the symptoms of this disease. NSAIDs can cause serious complications from the gastrointestinal tract (GI) in the form of erosive ulcer lesions of the mucous membrane of the gastroduodenal zone and the development of esophagitis. Taking into account risk factors, prescribing safer selective NSAIDs and gastroprotectors can reduce the frequency of these complications.

**Keywords:** rheumatoid arthritis, nonsteroidal anti-inflammatory drugs (NSAIDs), gastropathy, hyperplasia, erosive gastritis.

### RELEVANCE

Rheumatoid arthritis (RA) is an immunoinflammatory (autoimmune) rheumatic disease characterized by progressive destruction of joints and damage to internal organs, the development of which is determined by the complex interaction of environmental factors and genetic predisposition leading to global disorders in the system of humoral and cellular immunity [15]. The heterogeneity of the pathogenetic mechanisms of RA is reflected in the existence of a wide range of phenotypes and endotypes of the disease, which makes it possible to consider it not as a "single disease," but as a clinical and immunological syndrome [15].

In the absence of effective therapy, life expectancy in patients with RA is 3 years lower in women and 7 years lower in men, primarily due to the high risk of developing comorbid diseases - cardiovascular pathology, osteoporosis, severe infections, interstitial lung disease, cancer [15].

In many patients with RA, life prognosis is as poor as in lymphogranulomatosis, type 2 diabetes mellitus, three-vessel coronary artery involvement, and stroke. RA causes permanent disability in half of patients within the first 3-5 years from the onset of the disease, and after 20 years a third of patients become completely disabled [15].

Rheumatoid arthritis (RA) is a chronic disease requiring long-term therapy and causing drug pathology of the gastrointestinal tract (GIT). In the mid-90s. XX century impressive statistics dictated the need to talk about the "epidemic" of this pathology. The use of non-selective NSAIDs has been shown to increase the risk of gastrointestinal bleeding by more than 4 times. The incidence of NSAID gastropathy reached 4% in regular NSAIDs, and the

total number of deaths due to this pathology reached 5-15 per 100 thousand people per year [2].

In recent years, significant advances have been made in the treatment of RA, which is associated with the expansion of the possibilities of early diagnosis of the disease and timely therapy with non-steroidal anti-inflammatory drugs (NSAIDs). However, their use is associated with the development of a number of side effects, the most common of which is NSAID gastropathy. This complication is characterized by the occurrence of erosive and ulcerative defects on the mucous membrane of the stomach and duodenum [2].

Despite a large number of works devoted to the problem of diagnosis and prevention of NSAID gastropathy, the incidence of erosive-ulcerative lesions of the mucous membrane of the gastroduodenal zone and life-threatening complications remains high [2].

The widespread introduction into clinical practice of safer selective cyclooxygenase-2 inhibitors (TsOG-2) and effective "gastroprotective" drugs (PPIs) is of great preventive importance. Existing international consensus documents recommend stratifying patients taking NSAIDs into risk groups according to their risk factors, which makes it possible to determine the treatment and prevention of NSAID gastropathy [2].

The aim of the study was to assess the risk of gastroduodenal SD erosive ulcers induced by NSAIDs based on clinical characteristics and morphological parameters of gastric SD in experimental animals with simulated rheumatoid arthritis with RA.

#### Materials and methods

As part of the prospective method, we analyzed all the results of treatment of patients with RA from January 1, 2022 to June 30, 2022 in the rheumatology department of the Bukhara regional multidisciplinary hospital, taking them under our control. The total number of patients treated in hospital for 6 months was a total of 340, of which 340 were 45 men (13.2%) and 295 were women (86.8%).

Among these patients, 74 patients with RA with suspected gastropathy-NSAIDs aged 20 to 76 years were identified, and they were subjected to a large-scale examination. The examination used diagnostic criteria developed by the American Rheumatological Association (V. A. Nasonova, M. G. Astapenko, 1989) and identified a group of patients diagnosed with classic RA. In particular, the duration of RA disease averages 7.76 +. Clinical and laboratory analysis showed that 2 (2.7%) patients were in remission and 16 patients had activity level 1 rheumatoid arthritis - (19.7%), 47 patients (63.5%) had activity level 2 and 9 patients (12.8%) had activity level 3.

Seronegative variant was found in 29 patients (39.2%) and seropositive variant RA in 45 (60.8%), depending on whether RF was positive or negative. According to the history of patients with RA, 3 out of 74 patients had cholecystitis (4.1%), 2 patients had peptic ulcer and duodenal ulcer (2.7%), 60 patients (81.1%) had NSAID gastropathy, and 9 patients (12.2%) had other concomitant diseases. 74 patients with ra were under observation. 55 of 74 patients underwent FGDS testing (74.3%) to detect superficial and atrophic changes in the mucous membrane of the gastroduodenal zone of the upper

gastrointestinal tract. Of patients over 60 years old, 19 (25.7%) refused to be tested for FGDS.

Morphological studies were carried out in 2022-2023 in the research laboratory of immunohistochemistry and pathohistology, located in the vivarium and simulation center of the Bukhara State Medical Institute. Male and female white rats aged 18-24 months weighing 980-1200 g were selected for the experimental study.

#### Results and discussion

Of the 74 RA patients examined, 56 (75.7%) complained of periodic pain in the epigastric region, and 36 (48.6%) had dyspeptic syndrome. When we examined 55 patients under the age of 60, 44 (59.5%) were diagnosed with chronic gastritis. Depending on the location of the inflammatory process in the stomach, it was found that 23 of 44 patients (31.1%) had antral gastritis, 15 (20.3%) had fundal gastritis, 6 patients (8.1%) had pangastritis, 10 patients (13.5%) had erosion and 3 patients (4.1%) had ulcers in the stomach.

After all test animals belonging to both reference groups had been ethically slaughtered, the animals' bodies were dissected, gastric tissues were isolated, cleaned and topographically anatomically examined. As a result of the study, no significant changes in their appearance were observed visually, since almost the same results were obtained in both groups of laboratory animals, we did not consider it necessary to dwell on them separately. Histological preparations from gastric tissue were prepared from laboratory animals of the first main group (n = 30) and various morphological changes were detected under a microscope.

In micropreparations prepared from the liver tissue of laboratory animals, simulated rheumatoid arthritis (with Freund's adjuvant), morphological changes appeared in the liver tissue, in the stomach tissue (100.0%, n = 30), a change in most cells and, in particular, foveolar hyperplasia, erosion, intestinal metaplasia, the tip of erosive gastritis vsk these signs are considered characteristic of reactive gastropathy.

#### Conclusion

1. NSAID gastropathy is often diagnosed when women have auto-aggression factors (smoking, alcohol consumption); oral NSAIDs for more than five years;

2. NSAID gastropathy is mainly manifested by a complex of dyspeptic syndromes (79.1%), normal pain syndrome and lack of seasonality. When observing pain syndrome, its elimination is achieved not by eating and antacid drugs, but by cytoprotective and antibacterial agents for 2-3 days;

3. NSAIDs are characterized by an imbalance between the clinical picture of gastropathy and the endoscopic manifestation of inflammation in the stomach. The low-symptomatic clinical course of NSAID gastropathy corresponds to clear endoscopic and morphological signs of antral gastritis activity;

4. Functional and morphological changes in gastric tissue in rheumatoid arthritis consisted of the following, neutrophilic inflammation (100.0%, n = 30), while most cells changed and swelled around the tissues (80.4%, n = 22).

5. In laboratory animals (65.6%, n = 21) treated with NSAIDs (meloxicam 1 mg/kg 1 QD) within 28 days, the appearance of such foci as the appearance of characteristic signs of hyperplasia of the foveolar cells of the stomach, edema in tissues, exacerbation of dystrophic processes, especially vascular fullness, was detected (72.2%, N = 20), in addition, an increase in acute erosive gastritis and inflammatory processes in the stomach tissue was observed (87.8%, n = 26), an increase in the number of edematous processes in the intermediate tissue (73.6%, n = 20), and venous filling was also observed in the field of vision.

#### REFERENCES USED:

1.Насонов. Е.Л. Ревматоидный артрит: Современные представления об эволюции болезни и новые возможности фармакотерапии. Клиническая фармакология и терапии 2018, 27 (1), 6-13.

2.Калагова А.В.1, Айларова Н.Р.2, Панагов З.Г.3. НПВП-гастропатии у больных ревматоидным артритом. Вестник науки и образования № 1(55). Часть 1. 2019. Стр 97-99.

3.Каратеев А.Е. и др. Клинические рекомендации «Рациональное применение нестероидных противовоспалительных препаратов (НПВП) в клинической практике» // Современная ревматология, 2015. № 1. С. 4-23.

4. Дикарева Е.А., Макаренко Е.В., Пиманов С.И. Прогнозирование развития гастропатии, индуцируемой нестероидными противовоспалительными средствами у пациентов с ревматоидным артритом // Вестник ВГМУ, 2015. № 5. С. 46-56.

5. Акулова А. И., Гайдукова И. З., Апаркина А. В., Ребров А. П. Поражение желудочно-кишечного тракта при ревматических болезнях. экспериментальная и клиническая гастроэнтерология | выпуск 130 | № 6 2016. Стр 69-73.

6. Джаббарова М. Б., Саидова М. М. Гастропатическая Коморбидность У Больных Ревматоидным Артритом //Amaliy va tibbiyot fanlari ilmiy jurnali. – 2023. – Т. 2. – №. 1. – С. 1-6.

7.Исраилов Р.И., Шомурадова Ш.Ш. Особенности патоморфологии гепатотоксичности метотрексата при лечении ювенильного ревматоидного артрита вестник ташкентской медицинской академии. С-63-68. 2015, №4.

8.Каратеев А.Е., Гонтаренко Н.В., Цурган А.В. Коморбидная патология пищеварительной системы у больных ревматическими заболеваниями: не только НПВП-гастропатия. Научно-практическая ревматология. 2016(54) 4. Стр 382–389.

9.Каримов М. Ш. И. Р. Мавлянов, Н. Х. Тухтаева, Р. И. Мустафин. Ревматоидный артрит и поражение гастродуоденальной зоны (по данным ретроспективного анализа)

: научное издание / М. Ш. Каримов, // Медицинский журнал Узбекистана. - Ташкент, 2013. - №3. - С. 83-87 (Шифр М9013). - Библиогр.: 5 назв.

10. Каримов М. Ш. Некоторые показатели фармакокинетики диклофенака натрия у больных ревматоидным артритом с учетом коморбидных состояний : научное издание / М. Ш. Каримов, Н. Х. Тухтаева, М. В. Сибиркина // Терапевтический вестник Узбекистана / научно-практический журнал : ЗАО СЕАЛ МАГ. - 2020. - N 2. - С. 120-125 (Шифр Т15/2020/2).

11. Решетько О.В., Левитан А.И., Сулейманова Р.Р. Гастробезопасность фармакотерапии ревматоидного артрита. экспериментальная и клиническая гастроэнтерология | выпуск 157 | № 9 2018/ Стр.76-80.

12.ТрубниковаЛ.Н.,Шилова А.В., Александров. Проблемы коморбидного фона у пациентов с ревматоидным артритом Н.С. Вестник Волг.ГМУ. Выпуск 2 (70). 2019. Стр 12-16.

13. Усанова А. А., Бровкина И. В., Фади К. Факторы риска НПВП-гастропатии у больных с ревматическими заболеваниями //Актуальные проблемы медицины. – 2015. – Т. №. 4 (201). – С. 20-22.

14. Дроздов. В.Н., Ю.В. Мещеряков, С.Ю. Сереброва Е.В. Ших. НПВП-повреждения желудочно-кишечного тракта: новые возможности профилактики гастро- и энтеропатий. Медицинский совет. 2019;(21):166-174.

15. Клинические рекомендации – Ревматоидный артрит – 2021-2022-2023 (24.08.2021) – Утверждены Минздравом РФ. Стр 78.

16. Лоренц С. Э., Жариков А. Ю. Современные представления о патогенезе НПВП индуцированной гастропатии. Бюллетень медицинской науки. – 2019. – №. 3 (15). – С. 17-29.

17.Маев. И.В., Д.Н.Андреев, Д.Т.Дичева, Е.В.Жиляев. Новые представления о гастропатии, ассоциированной с применением нестероидных противовоспалительных препаратов. Consilium Medicum. 2017; 19 (8): 110–115.

18. Моисеев. С.В., П.И. Новиков, Н.В. Чеботарева, В.В. Рамеев, М.Ю. Бровка, Л.А. Акулкина, Н.Е. Никуленкова, Н.М. Буланов<sup>1</sup>, Т.П. Шевцова. Внесуставные (системные) проявления ревматоидного артрита. Клиническая фармакология и терапия. 2020. Стр. 53-59.

19. Морозова. О. Ю. Нестероидные противовоспалительные препараты: повреждающее действие на слизистую оболочку желудка и способы защиты от их ulcerогенного влияния. Интегративная физиология, 2021, т. 2, № 4. Стр 390-395.

20. Пахомова. И.Г. НПВП-ассоциированные повреждения желудочно-кишечного тракта и их осложнения: пути профилактики. .Pakhomova / Consilium Medicum. 2017; 19 (9): 109–113.

21. Пахомова. И.Г., Л. П. Хорошина. Как минимизировать риски НПВП-индуцированных поражений ЖКТ? Возможная тактика ведения пациента. Медицинский алфавит № 8 / 2017, том № 1 Современная поликлиника. Стр 15-20.

22. Исаков. Б.С., А.Б. Кулембаева, Г.С. Есиркепова. НПВП-индуцированные гастропатии в ревматологической практике: современные вопросы диагностики и лечения . Vestnik KazNMU №2-2018. Стр 486-489.

23. Каратеев. А.Е., Е.Ю. Погожева., Е.С. Филатова., В.Н. Амирджанова. Эндоскопическая картина верхних отделов желудочно-кишечного тракта на фоне приема различных нестероидных противовоспалительных препаратов //Клиническая фармакология и терапия. – 2018. – Т. 27. – №. 4. – С. 40-45.

24.Каратеев А.Е., Гонтаренко Н.В., Цурган А.В. Коморбидная патология пищеварительной системы у больных ревматическими заболеваниями: не только НПВП-гастропатия. Научно-практическая ревматология. 2016(54) 4. Стр 382–389.

25. Клёсов. Р .А., Н.Н. Каркищенко., О.И. Степанова, Е.Л. Матвеевко. Лекарственное поражение гастроинтестинальной системы и пути ее коррекции.(Обзор). Биомедицина journal biomed 2020 Том 16 № 3 | 14–34.