

# Clinical and Laboratory Examinations of Nsaids -Gastropathy in Patients with Rheumatoid Arthritis

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**Abstract** This article records clinical and laboratory data in patients with gastropathy rheumatoid arthritis caused by nonsteroidal anti-inflammatory drugs. In addition to the above, the use of nonsteroidal anti-inflammatory drugs leads to serious gastrointestinal ailments. The clinical picture of EGDS is erosive and ulcerative wounds in the gastroduodenal zone. It is possible to reduce the frequency of the above complications by prescribing safer selective NSAIDs and gastroprotectors.

**Keywords** Pain syndrome, Gastroprotectors, Gastrointestinal tract, Ulcerative lesions of the gastric mucosa, Study of biopsy specimens of the gastric mucosa

## 1. Relevance

NSAID belongs to the class of medicines that have a wide range of use in clinical practice. [6]. The field of application includes various pathological conditions accompanied by fever. [2]. Long-term use of NSAID at high doses is often found in rheumatology practice. This pathology is especially common in elderly ulcerative patients. [5]. The pathology is often the cause of death of patients with rheumatoid arthritis [3]. Early diagnosis, treatment and prevention of gastropathy induced by nonsteroidal anti-inflammatory drugs (NSAIDs) is one of the urgent problems, the importance of which is determined by the frequent development of this pathology that occurs with this complication, primarily gastric bleeding, in some cases with a fatal outcome [1,4]. In this regard, NSAID-induced gastropathy is often the main reason for discontinuation of therapy and prescribing medications aimed at treating gastropathy [6]. The purpose of our study was to evaluate the efficacy, tolerability and safety of the use of the Etoricoxib at a dosage of 90 mg once a day after meals for 4 weeks for the treatment of rheumatoid arthritis in patients with concomitant erosive and ulcerative lesions of the upper gastrointestinal tract in remission/moderate exacerbation against the background of prophylactic therapy with the pantap (pantaprazole) at a dosage of 20 mg 2 times a day with a comparison with the drug diclofenac.

## 2. Materials and Methods

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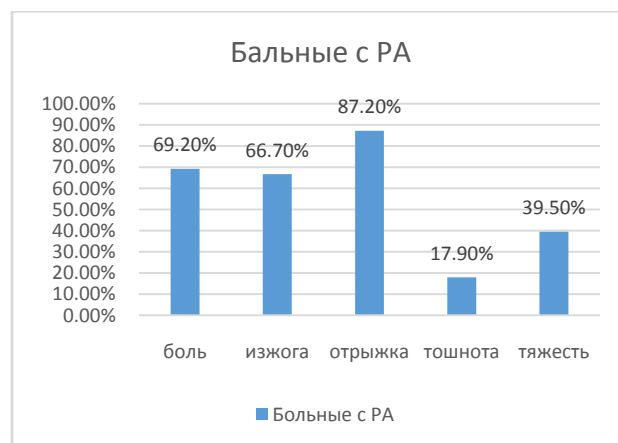
Received: Jan. 7, 2023; Accepted: Feb. 1, 2023; Published: Feb. 15, 2023

Published online at <http://journal.sapub.org/ajmms>

101 patients were examined, who had a reliable diagnosis of RA, of an average degree of activity. The patients were of middle age (41±15, 8 years). Pathology of the gastrointestinal tract was detected by a thorough clinical examination. Of the 101 patients who were under observation, 76 women and 25 men with RA were treated, of which 41 (23.6%) with EFGDS at the first stage of the study, NSAID-gastropathy was detected. The comparison group consisted of 40 patients taking non-selective NSAIDs (diclofenac 150 mg/day) and 20 patients taking selective NSAIDs (etoricoxib -90 mg/day) without the development of gastropathy. The control group consisted of 15 practically healthy individuals. All patients underwent endoscopic examination.

## 3. Own Clinical Research

Table 1



87.2% of RA patients had complaints of belching. Heartburn and epigastric pain were observed in 69.2% and 66.7% of RA patients, respectively. The data obtained are close to the results of previous studies. Thus, dyspepsia and epigastralgia bothered from 20% to 90% of patients taking NSAIDs. When comparing the frequency of complaints of pain and severity in the epigastric region, heartburn, belching, nausea in RA patients, no significant differences were found ( $p>0.05$ ). It can be assumed that the clinical manifestations of taking NSAIDs are not a characteristic feature for a particular pathology. Thus, epigastric pain, heartburn, belching were detected in more than 80% of patients. Considering that the predominant number of patients had superficial changes in the mucous membrane of the gastroduodenal zone, it should be noted that the severity of clinical manifestations did not correlate with the severity of endoscopic changes, that is there was clinical and endoscopic dissociation. Indicators of 24-hour pH-metric. In

the study of basal intragastric acidity of rheumatological patients, multidirectional changes from normal values were revealed, in contrast to the control group, where the basal normacid state was transformed ( $p<0.05$ ). Consequently, the secretory apparatus of the stomach of RA patients has certain changes that are more pronounced in the group of RA patients. These deviations in PA may be due to the involvement of the stomach in the immune inflammatory process, which is also confirmed by. When comparing the average values of basal intragastric acidity of RA patients compared with the control group, a tendency to a higher level of hyperacidity and a lower level of normacidity and hypoacidity of rheumatological patients was revealed ( $p>0.05$ ). These indicators also had some differences between the groups of PA patients: The indices of basal hyperacidity and hypoacidity tended to be higher in the RA group ( $p>0.05$ ).

Table 2

Локализация и частота повреждений СО верхних отделов ЖКТ у больных			Таблица 11	
Характер повреждения СОЖ		I группа с НПВП/гастропатией n=41 %	II группа без НПВП/гастропатии	III группа без НПВП/гастропатии
			2a n=40 %	2б n=20 %
Геморрагии	Всего	9 (21,9)*	-	1с НПВП
	Пищевода:	единичные (<3)	-	-
	множественные (7-10)	1(11,1)	-	-
	Тела желудка:	1(11,1)	-	-
	-единичные	-	-	-
	-множественные (7-10) АО:	2(22,2)	-	-
	-единичные (<3)	2(22,2)	-	-
	-множественные (9-10) Д11К:	4(44,4)	-	-
	множественные	1(11,1)	-	-
		3(33,3)	-	-
Эрозии	Всего	15 (36,6)*	-	-
	Тела желудка:		-	-
	-единичные	2(13,3)	-	-
	-множественные (7-10) АО:	2(13,3)	-	-
	-единичные (<3)	7(46,7)	-	-
	-множественные (9-10) ДНК:	2(28,6)	-	-
	множественные	5(71,4)	-	-
Язвы	Всего	17(41,5)*	-	-
	Тела желудка		-	-
	единичные (1-2) АО единичные (1-2) ДПК	2(11,8)	-	-
	единичные (1-2)	11(64,7)	-	-

Table 3

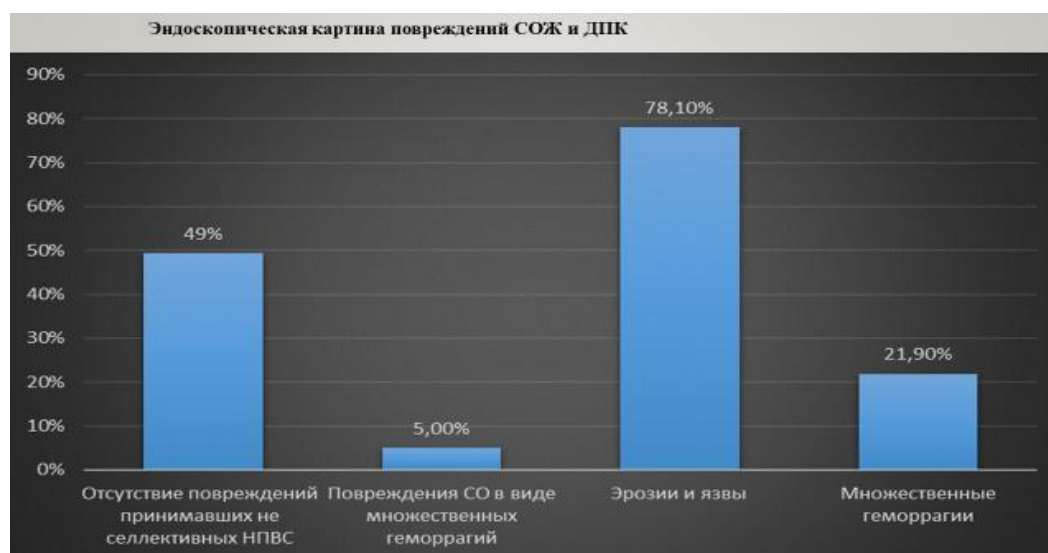


Table 4

Показатели эффективности терапии диклофенаком и эторикоксибом Таблица		
Показатели	Пациенты без НПВП-гастропатии	
	2а диклофенак n=40	2б эторикоксиб n=20
	M±t	M±ш
Боль в суставах при движении	51,5±1,5*	31,5±2,5*
Боль в суставах в покое	36,9±0,5*	25,6±3,5*
Утренняя скованность	57±3,5*	37±2,9*
Индекс Лейкена, баллы	6,7±0,1	6,6±0,1

Thus, for PA patients, the hyperacid state of basal intragastric acidity was more characteristic. Based on this, we have confirmed that the basal hyperacid state is not mandatory for the development of NSAID-induced gastrointestinal lesions. But the presence of hydrochloric acid in the stomach is a necessary factor of NSAID-induced damage to the mucous membrane of the upper gastrointestinal tract, since the development of acute erosive and ulcerative changes was not observed against the background of a basal anacid condition. The recorded results obtained after the experiments show that intragastric pH is also the cause of damage to the gastric mucosa induced by the use of NSAIDs. There is an opinion about the absence of symptoms-mute ulcers in NSAID-induced ulcers. For this reason, the only way to find out the method of diagnosis of NSAID-gastropathy and control of anti-ulcer therapy is an endoscopic examination. NSAID-induced gastropathies occur in the early stages from the start of taking medications (1-3 months). Therefore, the patients who start taking NSAIDs for the first time, require special attention from the attending physician in terms of timely diagnosis of gastroduodenal complications.

We chose drugs for the treatment of NSAID-induced gastropathies, these are proton pump inhibitors and synthetic analogues of prostaglandins.

## 4. Conclusions

The results show that etoricoxib has approximately equal efficacy and even has superiority in terms of safety. When using etoricoxib in patients with RA, dyspeptic syndrome develops in 5% of patients, gastropathy in 5%, characterized by multiple hemorrhages of the gastric mucosa, erosive and ulcerative lesions of the gastric mucosa are absent, optimal indicators of all parts of the hemostasis system and blood rheology are recorded. The efficacy of NSAID-gastropathy therapy with proton pump inhibitors determined with an

assessment according to EFGDS data. Endoscopic observation of the dynamics of epithelization of erosive and ulcerative lesions of the gastric mucosa revealed significantly faster healing in the group of patients who received colloidal bismuth subcitrate as part of complex therapy.

## 5. Discussion

Thus, the clinical and endoscopic data revealed by us in RA patients taking NSAIDs may play a significant role in the development of clinical manifestations of NSAID-gastropathy and, possibly, a certain group of patients needs to undergo drug correction of symptoms associated with impaired motor skills.

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