

The degree of damage to the gastroduodenal zone in patients with rheumatoid arthritis against the background of basic and anti-inflammatory therapy

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Abstract: Objective: To study the incidence of gastroduodenal lesions and the frequency of drug use in patients with rheumatoid arthritis based on retrospective analysis.

Patients and Methods: a retrospective analysis of 625 case histories treated in the rheumatology department of the TMA multidisciplinary clinic in patients with rheumatoid arthritis (RA) was carried out. The condition for selection was an endoscopic diagnosis, i.e. the presence of an endoscopic examination. The condition of the gastroduodenal zone (GDZ) and the pharmacotherapy of the underlying disease were evaluated.

The results of the study show that the pathology of GDZ in patients with RA is quite common, every third patient has symptoms of GDZ damage, and this is due not only to the intake of nonsteroidal anti-inflammatory drugs (NSAIDs) and glucocorticosteroids (GCS), but also due to the primary involvement of the mucous membrane of GDZ in the pathological process.

Keywords: Rheumatoid arthritis, gastric ulcer, gastritis, NSAIDs, corticosteroids

The main problem for rheumatoid arthritis (RA) patients is pain, one of the main signs of inflammation, and its intensity correlates with inflammatory activity. It creates serious psychological discomfort and restricts physical activity, which necessitates the long-term use of nonsteroidal anti-inflammatory drugs (NSAIDs) with analgesic, anti-inflammatory, antipyretic, and disaggregated properties [2,3,6]. However, their long-term use is associated with a range of adverse effects, primarily with damage to the mucous membrane (CO) of the gastroduodenal zone (GDZ). All NSAIDs, regardless of their chemical structure, dosage form, and route of administration, can cause ulcers, gastritis, gastropathy, and perforation [4,8]. In patients taking NSAIDs, the risk of gastrointestinal bleeding (GI) increases by 3-5 times, perforation of ulcers by 6 times, and the risk of death from complications associated with damage to the gastrointestinal tract (GI) by 8 times. Up to 40-50% of all cases of acute GI are due to NSAIDs [1,7]. Endoscopic examination of erosive-ulcerative lesions (HNP) OF SD GDZ (accompanied by dyspepsia or asymptomatic) are found in 40% of patients taking NSAIDs for a long time [5].

In the present study, the structure, frequency, and nature of gastrointestinal diseases in rheumatoid arthritis patients treated with NSAIDs and glucocorticosteroids (corticosteroids) were analyzed.

Materials and methods of research: the materials were a retrospective analysis of the medical histories of patients treated in the rheumatology department of the TMA multidisciplinary clinic for the period from 2019 to 2022. A total of 625 case histories diagnosed with RA, which were selected from 3399 cases, were retrospectively analyzed. Of these, 58 (9.3%) were men aged 19 to 64 years (mean age 44.2), and 567 (90.7%) were women aged 16-72 years (mean age 36.6 years).

The only condition for selection was an endoscopic diagnosis, i.e. the presence of an endoscopic examination. At the same time, it should be pointed out that out of 3399 treated rheumatological patients, only 1403 patients underwent endoscopic examination, which was 41.3%.

The results obtained and their discussion. The results of the endoscopic examinations show that out of 625 cases of RA, only 220 patients underwent endoscopic examination, of which 47 (21.6%) had gastroduodenitis, 12 (5.61%) had gastritis, 40 (18.2%) had gastritis in combination with duodenal ulcer (PU) or stomach ulcer, 38 (17.2%) had gastric erosion in combination with duodenitis. 33 (15%) had erosive esophagitis in

combination with gastroduodenitis, 16 (7.2%) had an isolated gastric ulcer, 29 (13%) had an isolated DPC ulcer, and 5 (2.2%) had axial hiatal hernia combined with reflux esophagitis. It should be noted that the presence of combined pathology of the gastroduodenal zone in 74.19% of patients. In addition, 48.2% of patients were found to have duodenogastric reflux of bile (Table 1).

Table 1.

Incidence of Certain Types of Endoscopically Established NSAID Gastropathies in RA Patients in Retrospective Studies

Types of gatropathy	Number of cases	in %
Gastroduodenitis	47	21,6
Gastritis + peptic ulcer disease	40	18,2
Gastritis	12	5,61
Gastric erosion + gastroduodenitis	38	17,2
Erosive esophagitis with gastroduodenitis + duodenogastric bile reflux	33	15
axial hiatal hernia + reflux esophagitis	5	2,2
DPC ulcer	29	13
Gastric ulcer	16	7,2
Including the concomitancy of GDZ pathology		74,2
duodenogastric bile reflux		48,2
Altogether	220	100%

When studying the medical histories, attention was paid to the patients' complaints, anamnesis, and previous gastrointestinal diseases. At the same time, in 64% of cases, complaints corresponding to the endocopically established diagnosis were revealed. In 36% of patients, complaints were scanty. Very often there was no gastrointestinal pain. The absence of complaints of pain and scarcity of symptoms in some patients is apparently due to the presence of analgesic effect of NSAIDs taken.

Along with complaints about the gastroduodelic zone, there were complaints characteristic of the distal gastrointestinal tract, characterizing irritable bowel syndrome:

1. Flatulence, rumbling in the stomach.
2. Bowel disorders (constipation and diarrhea).
3. Cramping pain that disappears after bowel movements.

In general, signs of irritable bowel syndrome were detected in 190 patients, which is 38% of the total number of patients studied. However, according to the case histories, it was not possible to establish the cause and relationship of gastrointestinal disorders with the use of NSAIDs.

As mentioned above, one of the leading causes of GDZ damage in the context of the development and progression of RA is the aggression of the mucous membrane of GDZ with drugs used as part of the pharmacotherapy of this disease.

In connection with the above, the structure of drugs used in RA patients and their specific weight depending on the presence or absence of GDZ pathology was studied.

The results of this analysis are presented in Table 2.

Table 2

Structure of Medicinal Products and Specific Weight of NSAIDs and Corticosteroids in Pharmacotherapy RA Medicinal Products

Medicines	Dosage form	Total number of patients		Specific to the structure of treatment (%)	
		RA	RA + gastropathology	RA	RA + gastropathology

GKS	Injection	498	225	19,2	23,2
	Pill	231	98	8,9	10,1
	Altogether	729	323	28,1	33,3
NSAIDs	Injection	593	224	22,9	23
	Pill	424	175	16,4	18
	Altogether	1017	399	39,3	41
Proton pump inhibitors		573	239	22,1	24,6
Basic funds		272	111	10,5	1,1
Altogether		2591	972	100	100

As can be seen from the presented data, NSAIDs occupy the largest share in the structure of RA pharmacotherapy, the share of which in the group of patients with and without GDZ pathology is 41% and 39.3%, respectively. At the same time, the ratio of their injectable and oral dosage forms was the same in both groups and amounted to 1.4:1.0 and 1.3:1.0.

Glucocorticosteroids took the second place in the structure of pharmacotherapy and accounted for 28.1% in the group of patients without GDZ pathology, and 33.3% in the group of patients with GDZ pathology. The ratio of injectable to oral forms was 2.2:1.0 and 2.3:1.0, respectively, in the group of patients without HDZ pathology and with HDZ pathology. Consequently, NSAIDs and corticosteroids were used equally frequently in both groups as part of pharmacotherapy. The share of basic drugs in the group of patients without gastroduodenal pathology was 10.5%, in the group with GDZ pathology only 1.1%.

Drugs aimed at protecting HDZ accounted for a smaller share in pharmacotherapy of patients without HDZ pathology and amounted to 22.1%, in the group of RA patients with GDZ pathology - 24.6%.

As can be seen from the results obtained, the drugs used as part of pharmacotherapy in In both groups, corticosteroids were used in a comparable specific weight, although there is a tendency for the predominance of corticosteroids in the group of patients with GDZ pathology. In addition, attention is drawn to the insufficiency of the specific gravity of antisecretory drugs in the group of patients with GDZ pathology.

Thus, a retrospective study showed that GDZ pathology occurs in 33.3% of RA patients, which is consistent with the literature data to a certain extent. The analysis of pharmacotherapy of RA depending on the presence of GDZ pathology indicates that the compared groups do not differ significantly in terms of the structure of drugs and their specific gravity. Therefore, the role of drug therapy in the genesis of GDZ lesions, revealed during the analysis, cannot be considered proven, but this version cannot be refuted either. Perhaps, drug aggression in the genesis of the identified pathologies of GDZ acquires importance taking into account the duration of treatment of RA patients.

Findings:

1. Pathology of GDZ in RA patients is quite common, every third patient has symptoms of GDZ damage.
2. Retrospective analysis does not fully prove the role of drug therapy in the genesis of GDZ lesions in RA patients
3. Lesions of the gastrointestinal tract in patients with RA are caused not only by the intake of NSAIDs, but also due to the primary involvement of CO GDZ in the pathological process.

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