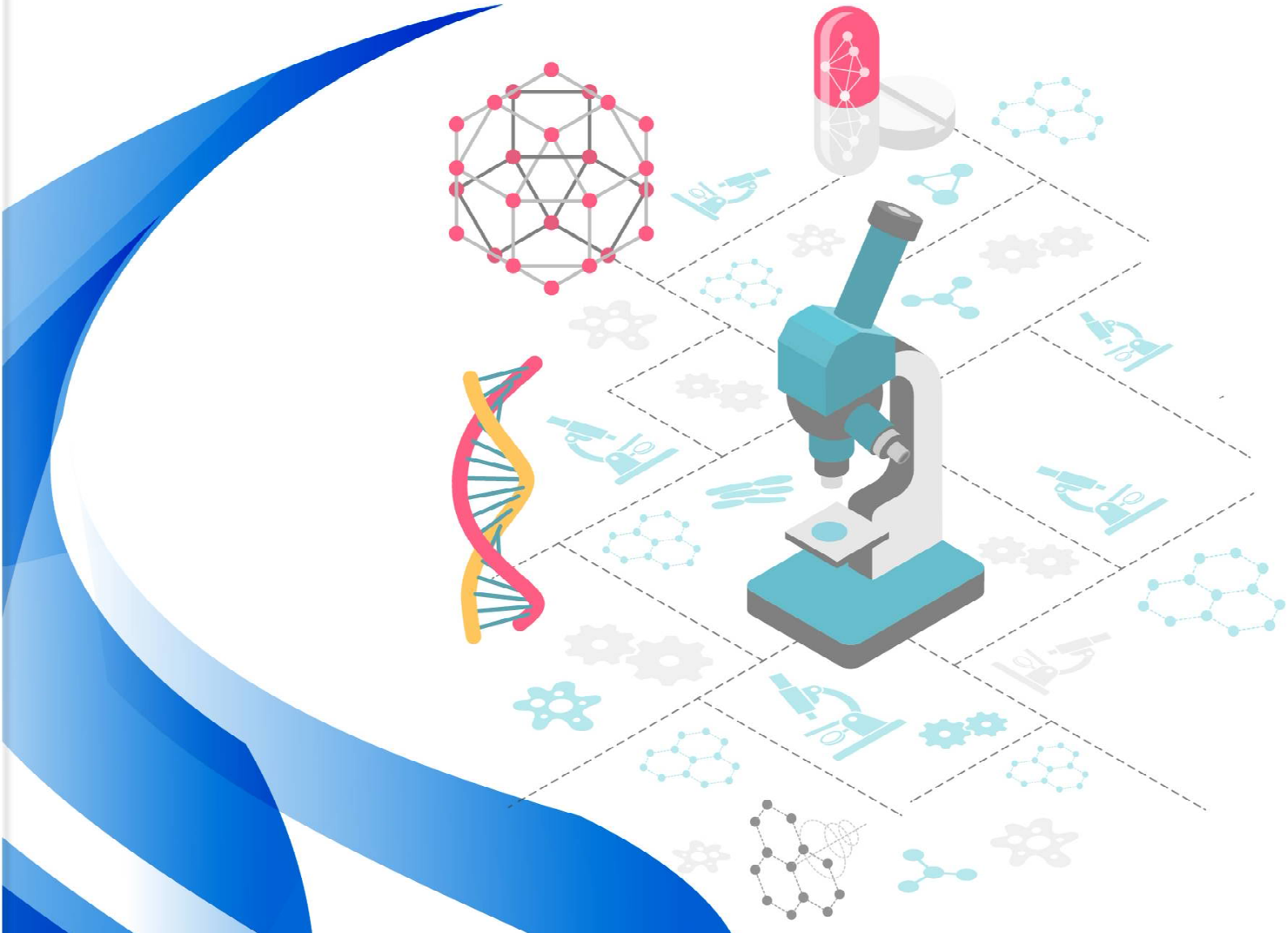
ISSN 2231-2218

ASIAN JOURNAL OF PHARMACEUTICAL AND BIOLOGICAL RESEARCH

AJPBR



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ASIAN JOURNAL OF PHARMACEUTICAL AND BIOLOGICAL RESEARCH

AJPBR

Internet address: http://www.ajpbr.org/index.php/ajpbr/issue/archive
Issued Quarterly
April, 2021

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RETROSPECTIVE ANALYSIS OF DRUGS USED TO TREAT REACTIVE ARTHRITIS

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Objective of the study: To conduct a retrospective analysis of drugs that were used in the treatment of reactive arthritis in patients of the rheumatology department of the TMA clinic.

Materials and Methods: A retrospective analysis of 276 case histories of patients with ReA of various etiologies who were treated in the rheumatology department of the TMA clinic for the period from 2018-2020 was carried out. Data processing was carried out in the EXEL program.

Results of the study: The analysis carried out in this direction showed that in 276 patients with ReA arthritis, 534 names of drugs aimed at treating the underlying disease were used, which was an average of 2.08 names per patient.

The analysis of the pharmacological groups of drugs used for the treatment of ReA, as can be seen from Table 1, shows that among them the proportion of NSAIDs and antibiotics is the highest, which is 42.6% and 35.3%, respectively. At the same time, the specific gravity of sulfonamides, in particular sulfosalazine and glucorticosteroids, is 4.1% and 6.8%, respectively. As for cytostatics and aminoquinoline drugs, they were used in isolated cases (Table 1).

Table 1.
Pharmacological groups of drugs used to treat ReA (according to retrospective analysis)

Drug groups	NSAIDs	Antibiotics	Sulfanilamides	Gluko corticosteroids
Quantitative ratio	254	210	24	41
Percentage	42.6	35.3	4.1	6.8

Consequently, in the structure of pharmacological groups of drugs used for the treatment of ReA, the highest proportion of NSAIDs and antibiotics, which generally corresponds to the principles of traditional pharmacotherapy of ReA, since the treatment of ReA should be aimed at eliminating the inflammatory process of the affected joints in order to restore them. functional activity. In this regard, the use of NSAIDs and their rather high proportion in the structure of ReA pharmacotherapy is quite justified. Along with the fact that NSAIDs are an obligatory component of the complex pharmacotherapy of ReA, there is evidence that up to 25% of patients with this pathology may not respond to their prescriptions [1].

If we take into account the fact that the development of ReA is associated with a previous intestinal or urogenital infection, then it seems quite logical to use antibiotics in the complex pharmacotherapy of this disease. Indeed, the results of our studies also indicate a high specific gravity in the structure of pharmacotherapy of antibiotics, which make up 1/3 of the drugs used. At the same time, the fact of the advisability of using antibiotics is still not so obvious due to their doubtful effectiveness in patients with ReA, especially postdiarrheal etiology. Research P. Toivanen [2], T. Yli-Kertulla et al. [3] showed that the possibility of ReA development after intestinal infections is not modulated by the use of antibiotic therapy. One explanation for this is that these pathogens are usually intracellular parasites. From this it follows that antibiotic therapy in patients with postdiarrheal ReA, in contrast to urogenital, does not always give the expected results.

It is known that the use of NSAIDs, along with a positive effect on the affected joints, is fraught with the development of side effects, especially a high incidence of NSAID gastropathy [4].

Therefore, it was of certain interest for us to study the frequency of occurrence and structure of concomitant diseases of the main pathology. The results of the analysis carried out in this direction showed that in 77 patients out of the identified 276 patients with ReA, they showed the presence of various comorbidities (Fig. 1).

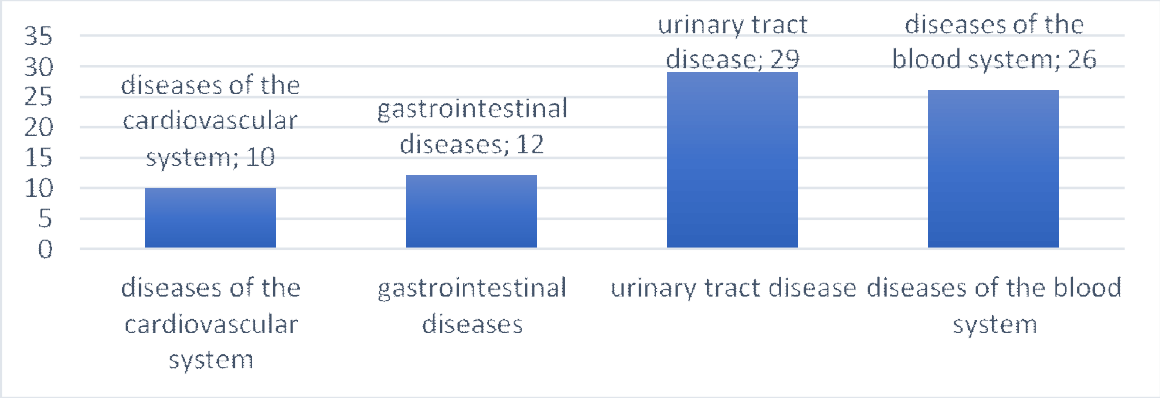

Fig. 1. The incidence of concomitant diseases in patients with reactive arthritis.

From the presented data, it becomes obvious that in the structure of concomitant ReA diseases, renal diseases and anemia take the leading place. If we take into account the fact that the proportion of females prevails among patients with ReA, especially in the age categories over 31 years old and with a history of 1 to 5 years, it becomes clear the reason for the prevalence of chronic pyelonephritis and iron deficiency anemia in the structure of concomitant diseases.

The greatest interest for us was the lesion of the gastrointestinal tract. Based on this, within the framework of this retrospective study, we purposefully studied the state of the gastrointestinal tract, in particular the gastroduodenal zone in patients with ReA. Анализ этиологической причины РеА у пациентов с сопутствующей патологией гастродуоденальной зоны, показывает, что в 40% случаев был урогенитальный РеА и в 30% случаев - постдиарейный. Consequently, among patients with urogenital pathology of ReA, there was more often concomitant pathology of the gastroduadenal zone. Although it was logical to expect a high incidence of gastroduodenal pathology among patients with postdiarrheal etiology of ReA. Since in the pathology of the small and large intestines, the likelihood of involvement in the pathological process of the gastroduadenal zone would be more natural. However, according to the data of retrospective analysis, this was not revealed. Therefore, it can be assumed that there is a different mechanism of interrelation between ReA and the pathology of the gastroduadenal zone, which requires targeted research.

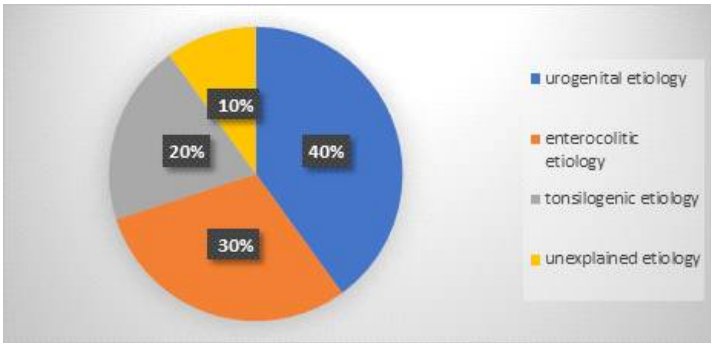

Fig. 2. The etiological cause of ReA in patients with concomitant pathology of the gastroduodenal zone.

As can be seen from the results obtained, diseases of the digestive tract, diagnosed as concomitant ReA pathology, have a rather low frequency. Therefore, for a more accurate inference about the presence of certain disorders from the gastroduadenal zone, we analyzed the case histories for the presence of symptoms of dysfunction of the studied part of the gastrointestinal tract.

The results of the analysis carried out in this direction showed that 66 out of 276 patients presented complaints characteristic of the gastroduadenal zone disease. It should be noted that, as mentioned above, the concomitant ReA pathology of the gastrointestinal tract was exposed only to 12 out of 276 patients. This is more than 5 times more than in which the diagnosis of diseases of this zone was verified.

As mentioned above, 1/5 of patients have lesions of the gastroduodenal zone, which require targeted correction.

Indeed, the analysis of the medical history in this direction showed that in these patients 132 names of drugs of antisecretory action were used, that for one patient with complaints of the gastroduodenal zone, 2.04 names of drugs of antisecretory action came. Representatives of this group of drugs and their frequency of use are shown in Fig. 3.

As can be seen from the figures presented in Fig. 14 data, the most frequently used was omeprazole from the group of proton pump inhibitors and ranitidine from the group of H2 blockers - histamine receptors, which makes up 43.8% and 38.4%, respectively, of the antisecretory drugs used.

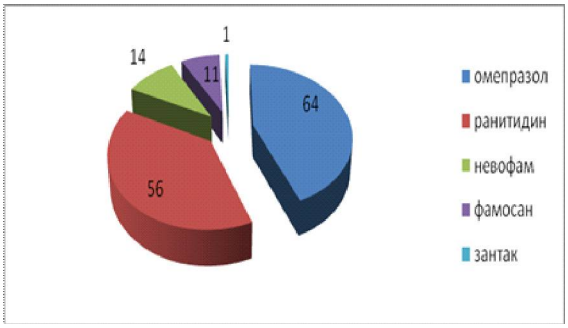

Fig. 3. The structure of drugs used for the treatment of gastroduodenal pathology in patients with ReA (retrospective study).

At the same time, the studied material and the information presented in them do not allow us to determine that the complaints identified by us, characteristic of the dysfunction of the gastroduodenal zone, are a manifestation of an independent pathology of this zone or a manifestation of side effects of NSAIDs.

To clarify this issue, we separately analyzed the proportion of drugs used for the treatment of ReA, depending on the duration of the course of articular pathology. Although this approach does not allow us to accurately figure out the genesis of complaints from the digestive system, it allows us to make a conclusion about the likely duration of the use of certain groups of drugs. The highest frequency of NSAID use is in patients with a history of 1 to 5 years. And this category of patients (with a history of 1 to 5 years), as shown above, make up the bulk of patients with ReA.

Indeed, the number of NSAIDs used among patients with ReA with a history of 1 to 5 years is 1.6 times higher than among patients with a history of up to 2 months and 3.5 times higher than with a history of ReA up to 1 year (Table 2).

At the same time, other drugs that are potentially dangerous in terms of gastroduodenal complications (GCS, delagil) did not have preferential use in this category of patients.

From this it follows that NSAIDs were presented in the pharmacotherapy of the main contingent of patients. Judging by the duration of the medical history, these patients received drugs from this group for a long time, which serves in favor of the likelihood of damage to the gastroduodenal zone of NSAID etiology.

Table 2.
Distribution of drugs used for the treatment of ReA, depending on the duration of the course of the disease

Used Medicinal drugs	Length of history				Total
	Up to 2 months	From 2 months Up to 1 year	1 to 5 years old	Over 5 years	
Antibiotics	63	27	89	53	232
NSAIDs	68	32	111	58	269
Gluko corticosteroids	11	11	9	8	39

Thus, the retrospective analysis carried out indicates that the lesion of the gastroduodenal zone in ReA is not uncommon, and that the reason for the change in GDZ is most likely long-term pharmacotherapy of ReA, in particular NSAIDs.

Used literature:

1.Curry JA, Riddle MS, Gormley RP, Tribble DR, Porter CK. The epidemiology of infectious gastroenteritis related reactive arthritis in U.S. military personnel: a case-control study. //BMC Infect Dis. 2010; 10: 266.

2.Hospach, T., Minden, K., Huppertz, H.-I. Reactive arthritis-an update o'Reaktive Arthritis - ein Updateg' // Monatsschrift fur Kinderheilkunde. 2021; 169(2): 177-189.

3.Nidavani, R.B. Update on the diagnosis and management of Reactive arthritis (Reiter's syndrome) // R.B. Nidavani, A.M. Mahalakshmi, K.L. Krishna // Der Pharmacia Sinica. 2015; 6(2): 12-18.

4.Porter CK, Choi D, Riddle MS. Pathogen-specific risk of reactive arthritis from bacterial causes of foodborne illness. //J Rheumatol. 2013; 40(5): 712-4.