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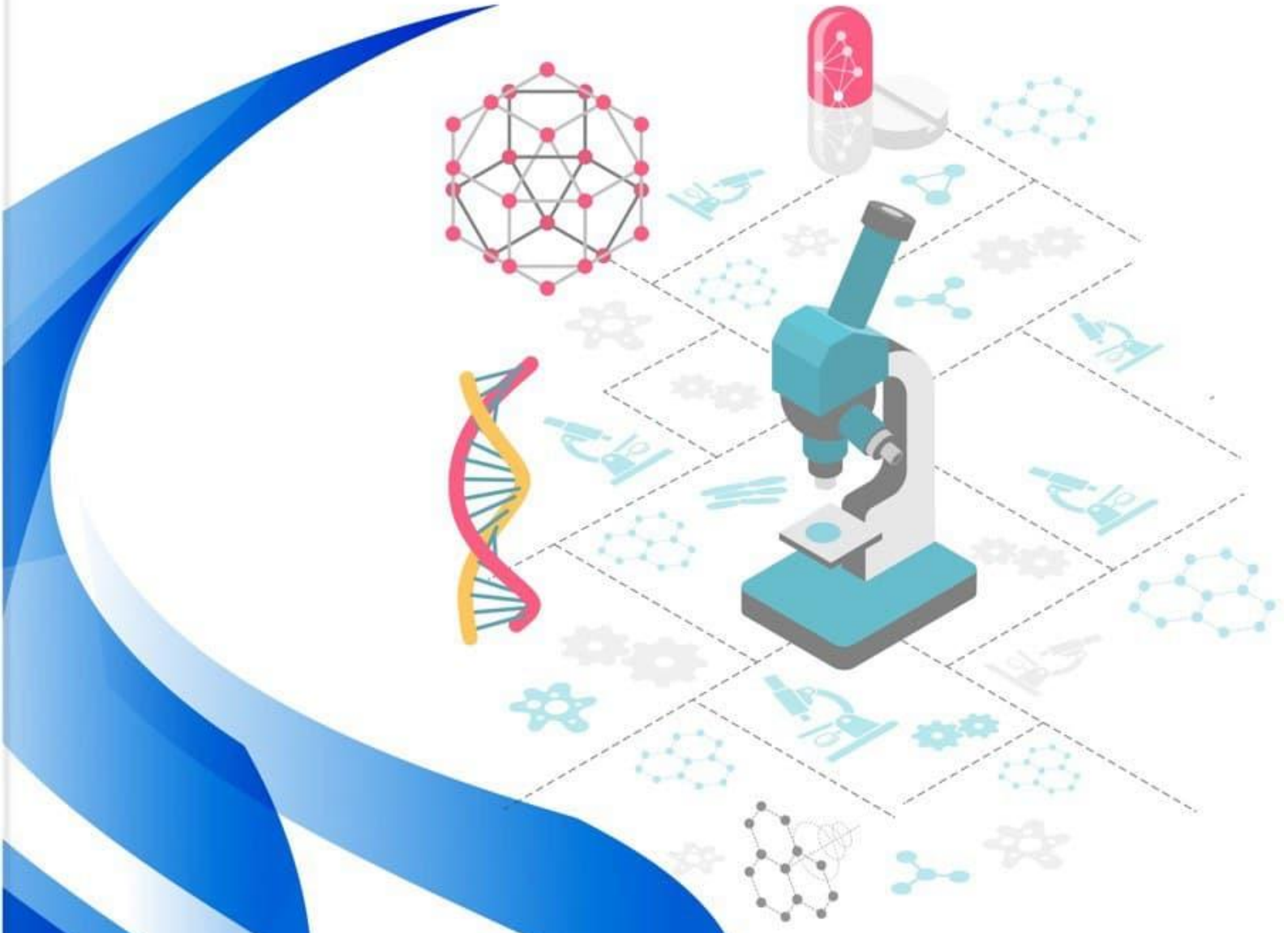

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THE USE OF THE NONSTEROIDAL ANTI-INFLAMMATORY DRUG ETORICOXIB IN RHEUMATOLOGIC PRACTICE

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Abstract. The object of the present study was a comparative analysis of nonsteroidal anti-inflammatory drugs diclofenac and etoricoxib in rheumatological practice. Their positive qualities, adverse reactions and complications are noted. The article describes the features of a new type of NSAID - etoricoxib, which highly selectively inhibits cyclooxygenase-2 (COX-2) enzyme. The drug was created on the basis of new ideas about the mechanism of action of NSAIDs on the inflammatory process. Use of etoricoxib - a highly selective COX-2 inhibitor in general rheumatology practice allows to increase treatment efficacy and decrease the risk of side effects from gastrointestinal side.

Keywords: rheumatology, nonsteroidal anti-inflammatory drugs, etoricoxib, diclofenac, prostaglandins, cyclooxygenase.

Introduction. Nonsteroidal anti-inflammatory drugs (NSAIDs) are a class of drugs whose therapeutic activity is associated with preventing the development or reducing the intensity of inflammation. Currently, there are at least 50 different chemical structure of dosage forms classified as NSAIDs [1; 2; 3; 4; 5; 6]. They are among the most commonly used medicines in clinical practice. NSAIDs are most widely used in rheumatology practice [3; 7].

It is known that long-term use of NSAIDs has adverse effects on the mucous membrane of the gastrointestinal tract (gastrointestinal tract), which generally occur in about 25-40% of patients, and in 5% of cases pose a serious threat to the life of patients. Therefore, in recent years, much attention has been paid to the problem of the safety of the use of NSAIDs [1; 8; 9; 10, 72-99].

In 1994, J. Vane formulated a hypothesis according to which the anti-inflammatory, analgesic and antipyretic effects of NSAIDs are associated with their ability to inhibit cyclooxygenase-2 (COX–2), while the most common side effects (damage to the gastrointestinal tract, kidneys, violation of platelet aggregation) are associated with suppression of COX-1 activity [11, 16-27]. At the same time, based on the interpretation of localization and genetic regulation, and especially the structure of COX-1 and COX-2, theoretical prerequisites have been created for the creation of a new class of NSAIDs with the ability to selectively inhibit COX-2, and the use of which will improve the safety of treatment of rheumatic diseases [1; 12; 13; 14; 15, 28-42].

In recent years, several substances with similar pharmacological properties have been synthesized, which have high anti-inflammatory and minimal ulcerogenic activity. Among them, etoricoxib has proven to be a very effective and low-toxic NSAID. Etoricoxib (5-Chloro-6'-methyl-3-[4-(methylsulfonyl)phenyl]-2,3'-bipyridine) is a selective COX inhibitor-2 [1;15, 43-71].

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Volume 12 Issue 1
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Material and methods of research. We studied the effectiveness of etoricoxib in 90 patients with a reliably established diagnosis according to the criteria of the Institute of Rheumatology of the Russian Academy of Medical Sciences. Patients with a burdened gastrointestinal history were selected for the study. The patients were distributed as follows: 20 patients with rheumatoid arthritis, 20 patients with reactive arthritis, 20 patients with ankylosing spondylitis and 30 patients with psoriatic arthritis.

The control group consisted of 20 patients with each nosological unit. Patients of the control group took Diclofenac 100 mg per day as a nonsteroidal anti-inflammatory drug.

All patients for basic therapy took methotrexate 15 mg per week.

The study was conducted on the basis of a multidisciplinary clinic of the Tashkent Medical Academy.

Clinically, the following indicators were evaluated in all patients: joint pain (in points), the Richie joint index (in points), the number of inflamed compression strength of the hands (in mmHg), the Lee test (in points). Patients with ankylosing spondylitis were additionally diagnosed with symptoms of Forestier, "thread", Schober, Otto, Tomayer, Kushelevsky.

In addition to the above, the data of laboratory and instrumental research methods were evaluated: general blood analysis, general urine analysis, C reactive protein, rheumatoid factor, magnetic resonance imaging of joints.

A special place in evaluating the results of the study was occupied by fibrogastroduodenoscopy (FGDS), which was performed before and after treatment. FGDS allowed to objectively control the effect of the drug on the gastrointestinal tract.

Patients who received inpatient treatment in the rheumatology department continued to receive outpatient treatment for one month. Thus, the duration of treatment of patients was 25-28 days. A complex of clinical, laboratory and instrumental studies was carried out before and after treatment.

The drug etoricoxib was prescribed once a day for 90 mg of the active substance (etoricoxib).

Patients of the control group received diclofenac tablets of 100 mg per day instead of etoricoxib.

Table 1 shows the results of the treatment in patients with rheumatoid arthritis.

Table 1

Dynamics of clinical and laboratory parameters in patients with rheumatoid arthritis

Indicators	Etoricoxib		Diclofenac	
	Before treatment	After treatment	Before treatment	After treatment
Morning stiffness (min.)	183,5±13	63,1±8,1	184,1±14	64,3±9,2

Asian journal of Pharmaceutical and biological research 2231-2218
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Volume 12 Issue 1
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	,6	*	,1	*
Ritchie Index (score)	21,2±1,2	7,7±0,8*	22,2±1,2	8,0±0,9*
Number of inflamed joints	6,1±0,5	1,2±0,3*	6,2±0,4	1,3±0,3*
Whether the test (score)	12,5±1,2	6,5±0,8*	12,8±1,1	6,2±0,9*
ESR (mm/h)	34,5±2,7	18,5±1,8 *	32,8±2,8	19,2±1,8 *
Epigastric pain	4,9±0,6	4,5±0,5	4,8±0,9	8,2±0,8*
Heartburn	6,5±0,7	6,4±0,6	6,6±0,6	7,4±0,8

Note: * - the reliability of differences in indicators before and after treatment.

From the data in this table, it can be seen that the drug etoricoxib is comparable in its effectiveness to diclofenac. At the same time, in patients taking diclofenac, there was an increase in the frequency of adverse reactions from the gastrointestinal tract, such as epigastric pain and heartburn from 4.8 ± 0.9 to 8.2 ± 0.8 and 6.6 ± 0.6 to 7.4 ± 0.8, respectively. The results of FGDFS also showed negative dynamics in patients taking diclofenac – exacerbation of duodenal ulcer in 15% of patients, and 5% of patients had erosion in the duodenum.

In this study, a similar analysis was performed in patients with reactive arthritis. These patients received tetracycline 2 grams per day as antibacterial therapy.

The results of our research are shown in Figure 1.

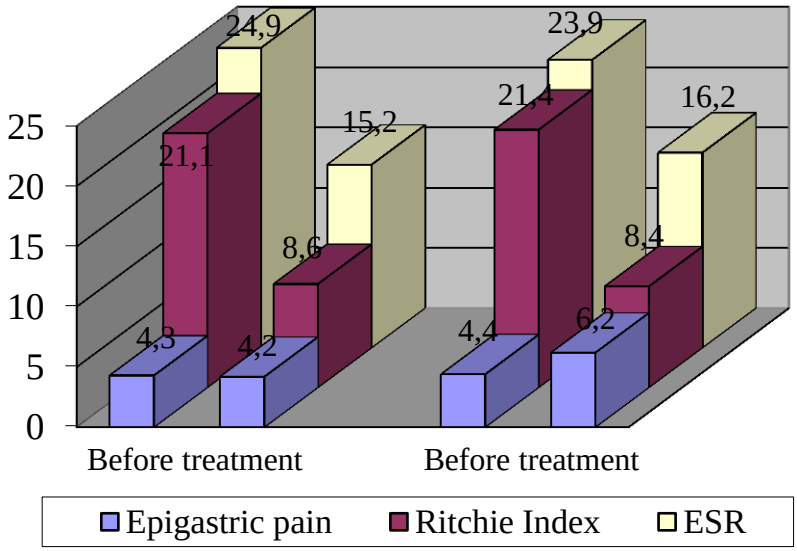

Fig. 1. Dynamics of clinical and laboratory parameters in patients with reactive arthritis

As can be seen from the figure, there was no tendency to increase in epigastric pain in patients taking Nimesil after treatment. At the same time, in patients

receiving diclofenac, after treatment, there was an increase in pain in the epigastric region. FGDS data confirmed subjective complaints from the gastrointestinal tract.

Similar data were obtained in patients with ankylosing spondylitis and psoriatic arthritis.

Thus, the results of the study allow us to discuss one of the complex issues of therapy of rheumatological patients – the ratio of benefit and risk, i.e. the degree of efficacy and safety in relation to the development of side effects from the gastrointestinal tract.

It can be argued that the data obtained indicate the possibility of using etoricoxib in a wide clinical practice. The proven high anti-inflammatory activity of etoricoxib, manifested in reducing not only the pain syndrome from the joints, but also the signs of gastropathy, allows us to conclude that the drug can be successfully used in various rheumatological diseases, even in the presence of gastrointestinal diseases (gastritis, peptic ulcer in remission).

Etoricoxib is one of the most popular representatives of the group of nonsteroidal anti–inflammatory drugs, widely used in rheumatology practice. It is a highly selective COX-2 inhibitor with a rapid and pronounced analgesic effect, high anti–inflammatory potential and the ability to influence the development of central sensitization - one of the central mechanisms of the formation of chronic pain.

Thus, the use of etoricoxib, a highly selective COX–2 inhibitor in a wide rheumatology practice, makes it possible to increase the effectiveness of treatment and reduce the risk of adverse reactions from the gastrointestinal tract.

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