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МЕДИЦИНА ТИСЯЧОЛІТТЯ
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A slow decrease of temperature was observed after 2 and then 3 hours subsequently to the introduction of the pharmaceutical formulation of paracetamol and caffeine. After 24 hours the temperature returned to normal.

The peak of temperature was 38.28 ^{0}C and gradually decreased after 1, 2, 3 hours after the addition of the reference diclofenac sodium drug (to 37.70 ^{0}C) subsequently to measuring the temperature, after 24 hours of the experiment, it returned to normal (37.10 ^{0}C).

Thus, in the presence of caffeine, the antipyretic effect of paracetamol significantly increases and prolongation of this effect is observed. Therefore, this pharmaceutical composition is considered appropriate in relation to the antipyretic activity, in contrast to the pharmaceutical composition of the pyroxicam with caffeine, which preventive treatment is not effective due to its low antipyretic activity.

Tishakova T., Stukalkina D.

EXPERIMENTAL STUDY OF THE ANTI-INFLAMMATORY EFFECT OF 4-HYDROXY-2-METHYL-N-(4-METHYLTHIAZOLE-2-YL)-2H-1,2-BENZOTHIAZINE-3-CARBOXAMIDE 1,1-DIOXIDE, 1,3,7 TRIMETHYLXANTHINE AND THEIR COMPOSITION

Kharkiv National Medical University
Department of Medical and Bioorganic Chemistry
Research advisor: Prof.Syrova G.O.

Rheumatic diseases are one of the most urgent problems not only in rheumatology, but also in medicine in general due to high rates of their prevalence. According to WHO, 30% of cases of temporary disability and 10% of disablement are associated with rheumatic diseases, and more than 4% of the world's population have various diseases of the joints and the spine. Modern medicine has a wide variety of anti-inflammatory drugs, but the serious problem of already existing medicaments for the rheumatic diseases treatment is that long-term use causes different side effects. Therefore, the search for highly effective pharmacological compositions that suppress inflammation and have a low risk of undesirable side effects is relevant.

One of the promising directions in this search is the creation of pharmaceutical compositions based on non-steroidal anti-inflammatory drugs (NSAIDs), the selectivity of which varies. Such medicaments include 4-hydroxy-2-methyl-N- (5-methyl-1,3-thiazol-2-yl)-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide (meloxicam) which differs from other drugs with a high efficiency and safety when applied. In previous studies, we investigated the role of 1,3,7-trimethylxanthine (caffeine) as adjutant of NSAIDs of different chemical structures. But the pharmaceutical composition of meloxicam with caffeine in the pharmaceutical industry is absent.

Therefore, our goal was to study the anti-inflammatory effect of a pharmaceutical composition consisting of meloxicam and caffeine in comparison with monopreparations and with a reference drug - sodium diclofenac. Anti-inflammatory action of the aforementioned substances was studied with the help of a biochemical indicator - sialic acid (SA). Definition of SA in biological fluids is widely used as a marker of inflammation.

For the study of the anti-inflammatory effect, biochemical experimental studies with laboratory animals (white rats) were conducted. Their purpose was to compare the anti-inflammatory action of meloxicam, caffeine, and the pharmaceutical composition with the reference drug against the formalin edema. The animals were divided into 6 groups (6 animals per group). The rats of the 1st group (control) were injected once perorally intragastrically with 3% starch mucus (2 ml per 200 g body weight). In the 2nd group the formalin edema was simulated with sub-planetary injection of 2% formalin solution to the rat's posterior paw and these animals were injected intragastrically with 3% starch mucus as well. The animals of 3-6 groups were once injected with the following preparations based on 3% starch mucus in the form of a suspension 1 hour before the development of the maximal edema: animals of the 3rd group - with meloxicam (0.6 mg per 1 kg body weight); 4th group under the same conditions - with caffeine (0.6 mg per 1 kg), the 5th group - with composition of meloxicam with caffeine (0.6 mg per 1 kg); 6th group (the reference one) - with diclofenac sodium (8 mg per 1 kg). Doses were transmitted from human doses to rats' using the specific sensitivity according to

Rybolovlev Yu.R. Experimental study of anti-inflammatory effect showed that monoinjection with meloxicam decreased the content of SA in 1,9 times. In the case of monoinjection with caffeine, there was a 1,7 decrease in the content of the SA against the formalin edema, which was not statistically significantly different from the reference drug. The combination of meloxicam and caffeine was the most effective among the others - it demonstrated a 2.2 decrease in the SA content and was closer to control; that is, there was a potentiation of anti-inflammatory effect of meloxicam by caffeine. The researched composition was better than the reference drug.

Conclusions: It has been established that the leader in biochemical studies is a two-component pharmaceutical composition of meloxicam with caffeine

Tymbota M.

EXPRESS ASSESSMENT OF THE FUNCTIONAL STATE OF THE CARDIOVASCULAR SYSTEM OF MEDICAL STUDENTS THROUGH FUNCTIONAL TESTS

Kharkiv National Medical University
Department of physical rehabilitation, sports medicine with a course of physical education and health
Research advisor: Lapko S.V.

One of the most important strategic tasks of the state is to preserve and strengthen the health of student youth. Annual medical examinations of students attending higher education, show a significant deterioration in their functional status, especially the cardiovascular system (CVS), physical development lag, and a high percentage of people with chronic illnesses. These tendencies are particularly evident in relation to students of medical universities. The activity of a medical student is among the types of work strained in the emotional plan, which affects their mental and physical health. Deviations in the state of health, formed in adolescence, reduce the possibility of implementing important social and biological functions when entering the socially active period of life. In this regard, it is relevant to assess the functional state of students, primarily the cardiovascular system as an indicator of the autonomic nervous system.