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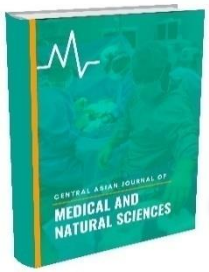

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Study Of The Morphometric Indicators Of The Liver Of Album Rats Under The Effect Of 3 Different Anti-Inflammatory Medicines In Polyprogramsis

[1] **Usanov Sanjar Sadinovich**
[2] **Khidirov Ziyadulla Erkinovich**
[3] **Djumaev Husen Abdurafikovich**

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[1] Associate Professor (PhD) of the Department of Human Anatomy, Samarkand State Medical University

[2]. Assistant, Department of Human Anatomy, Samarkand State Medical University

[3]. 2nd year student of Samarkand State Medical University
Samarkand, Uzbekistan

Abstract : The desire to improve the effectiveness of eatment in the patient's body, to help the patient get rid of all ıe diseases that have developed in him, inevitably leads to the ppointment of many drugs - drugs (drugs) - which, in turn, ads to polypharmacy in the patient.

Polypharmacy is a serious problem of the health care ystem, because it is clinically manifested by a decrease in the ffectiveness of pharmacotherapy and the development of nwanted adverse reactions, as well as a significant increase in ealth care costs.

The term "polypragmasia" is often used in the medical terature, but there is no generally accepted definition. For ıis purpose, the parameters of comparing the morphometric ıdicators of the liver of white rats in normal condition and nder the influence of anti-inflammatory drugs in olypharmacy were studied. The purpose of the work was to ll in the data on morphological and morphometric arameters of liver tissue.

Ключевые слова: polypragmasy, morphometry, morphology, inflammation.

Importance. There is a rapid increase in the creation and implementation of many drugs capable of treating diseases, which, on the one hand, improves the patient's condition, and on the other hand, it has been proven recently that it seriously harms health.

In Russian literary sources, polypharmacy is defined as the simultaneous use of many drugs, including their unreasonable use. In foreign literature, the term "polypharmacy" is used (polypharmacy,

from the Greek poly-many and pharmacy - drug). In medical dictionaries, polypharmacy is "mixing several drugs in one prescription", "using several drugs to treat one or more diseases"; this phenomenon is often observed in elderly patients "and more than 20 definitions are given in scientific publications.

Goals and objectives. Side effects of drugs, kidney and cardiovascular pathologies are an actual problem in the whole world.

The leading place in the development of these pathologies is occupied by nonsteroidal anti-inflammatory drugs (NSAIDs), which are one of the most widely used drugs.

Histological methods of analyzing the morphofunctional state of the liver are widely used in the diagnosis and differential diagnosis of liver diseases of various etiologies. However, their results do not always reflect the disruption of the entire organ structure. Therefore, from the point of view of the possibility of studying the changes in the liver tissue in the case of polypharmacy from nonsteroidal anti-inflammatory drugs, a macroscopic and microscopic study of the liver of non-white rats was made, and 40 livers of non-white rats were studied macroscopically and microscopically.

Material and methods. During the examination, based on macroscopic and microscopic studies of liver tissues, a total of 40 liver tissues were pathogistologically examined. For general morphology, 2 pieces of each liver, i.e. the large piece and 1.5x1.5 cm pieces from the middle part, were cut and frozen in 10% neutral formalin. After washing in running water for 2-4 hours, they were dehydrated in increasing concentrations of alcohols and xylene, then paraffin embedded and blocks were prepared. 5-8 μm sections were prepared from paraffin blocks and stained with hematoxylin and eosin.

The following anti-inflammatory agents were used to study the effects of polypharmacy in experimental groups of white rats in the experimental group:

Aspirin (NYaQD-salicylic acid derivatives), paracetamol (NYaQD-anilide derivatives), ibuprofen (NYaQD-propionic acid derivatives).

Results and conclusions. White rats taken for the experiment were divided into 2 groups (n=40): I-group – (intact) control (n=20); II-group - white rats that received 3 different nonsteroidal anti-inflammatory drugs, paracetamol 15 mg/kg, aspirin 5 mg/kg, ibuprofen 6 mg/kg (n=20); Doses of this drug were empirically calculated and administered intragastrically every day for 10 days in the form of a solution.

From the 141th day of development to the 150th day, rats in the Control group of white non-breed rats were given 0.5 ml of distilled water intragastrically through a metal probe for 10 days.

Sections taken from the liver of purebred rats were morphometrically examined, and the size of liver parenchyma and hepatocytes was measured using an ocular micrometer, in which we used a trinocular microscope manufactured in China. DN-107t/ Model NLCD-307b (Roman, China).

Mathematical processing of the morphological data obtained during the study was performed directly from the general matrix of the Microsoft Office data package using the capabilities of the program "STTGRAF 5.1" on a Pentium-IV personal computer "Excel 7.0", standard deviation and representative errors were determined.

Variational parametric statistics methods were used to calculate the arithmetic mean (M), mean square deviation (m), average standard error (m), relative values (frequency, %) of the studied indicator.

The statistical significance of the measurements obtained in the comparison of sizes was determined by calculating the Student's test (t) for the normality of the distribution (according to the

kurtosis test) and the probability of error (P) in testing the equality of common variances (f – Fisher's test). Tables of indicators and critical values for acceptable significance levels (P) were used to assess the statistical significance of the calculated criteria.

Four main levels of significance were accepted as statistically significant changes: high - R< 0.001, medium R< 0.010, low (marginal) - R< 0.050, insignificant (uncertain) - R> 0.050.

Thus, the use of a complex of nonsteroidal anti-inflammatory drugs (NSAID) as described above led to the appearance of various pathomorphological changes in the liver parenchyma in rats (Fig. 1, 2). Treatment of some chronic diseases is a long-term process, and at the same time, taking into account the high probability of developing toxic liver pathologies in patients, it is recommended to include hepatoprotective agents in treatment regimens.

Summary. This information allows us to distinguish pathologies and compare cells with each other with the help of a microscope, knowing the normal indicators in the liver.

- Histological methods of analyzing the morphofunctional state of the liver are widely used in the diagnosis and differential diagnosis of liver diseases of various etiologies.
- These data can be used in the histology and pathology departments of medical institutions to fill out microscopic and macroscopic data during the educational process.
- Knowing the parameters of comparison of the morphometric indicators of the liver of non-white rats under the influence of anti-inflammatory drugs in a normal state and polypharmacy makes it easier to make a pathogistological diagnosis.
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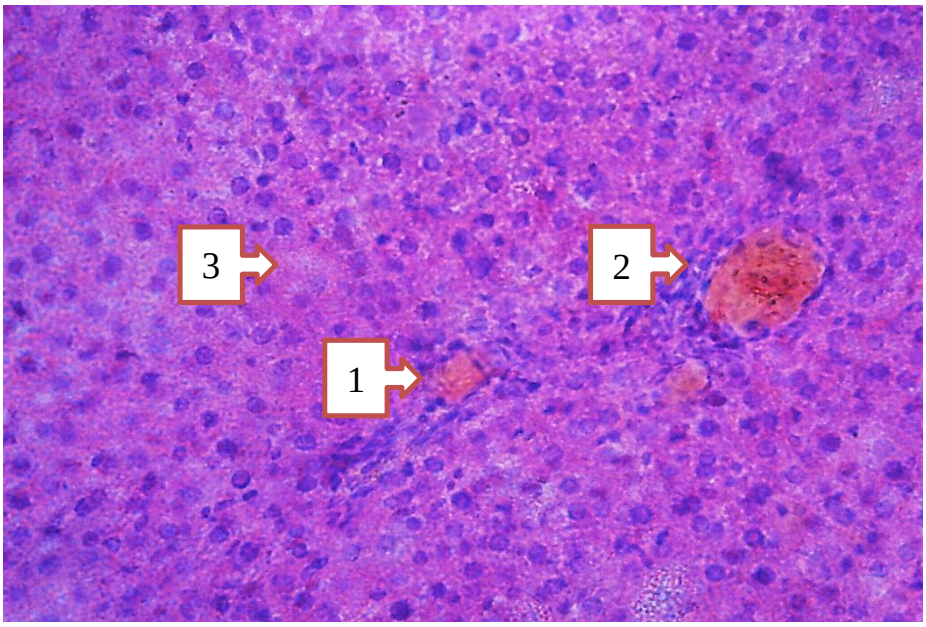

Figure 1. Central vein, full, surrounded by lymphocytic infiltration (1), interlobular vein, full, surrounded by leuko-lymphocytic infiltrations (2), degeneratively changed hepatocytes (3).

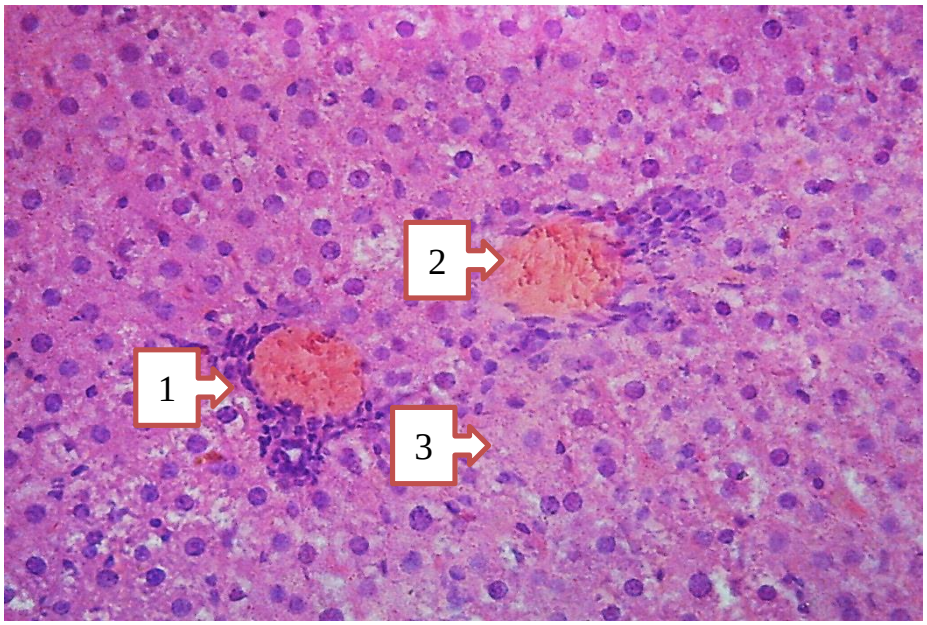

Figure 2. The central vein is full, surrounded by lympho-leukocyte infiltrations (1), the interlobular vein is full (2), and hepatocytes have undergone degenerative changes (3).

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