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COMPARATIVE CHARACTERISTICS OF ANATOMICAL AND MORPHOMETRIC PARAMETERS, MASS, LENGTH, WIDTH, AND THICKNESS OF THE LIVER UNDER THE INFLUENCE OF ANTIINFLAMMATORY DRUGS PARACETAMOL, ASPIRIN, IBUPROFEN AND DEXAMETHASONE.

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Abstract: In medical practice in the healthcare sector of Uzbekistan, active work is underway to reduce polypharmacy. Order of the Ministry of Health of the Republic of Uzbekistan dated 18.06.2010 No. 191 "Regulations on the procedure for prescribing medicines and the procedure for receiving, storing, and using medicines for patients in medical and preventive institutions, as well as approval of dispensations in pharmacies based on the appointment of medicines to the population." (Registered by the Ministry of Health on 29.06.2010 N 2118). Resolution of the President of the Republic of Uzbekistan dated December 30, 2019. PQ-4554 "On additional measures to deepen reforms in the pharmaceutical industry of the Republic of Uzbekistan."

Key words: rat, liver, morphometry, morphology, polypharmacy, inflammation.

СРАВНЕНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА МОРФОМЕТРИЧЕСКИХ ПОКАЗАТЕЛЕЙ ПЕЧЕНИ ПОД ВЛИЯНИЕМ ПРЕПАРАТОВ ПАРАЦЕТАМОЛА, АСПИРИНА, ИБУПРОФЕНА И ДЕКСАМЕТАЗОНА.

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Аннотация: В статье описан морфологических изменений в печени лабораторных животных при одновременном применении противовоспалительных препаратов парацетамола, аспирина, ибупрофена, дексаметазона. В пространстве Диссе происходит обмен веществ между гепатоцитами и плазмой крови, а также в этом пространстве располагаются клетки Купера участвующие в фиброгенезе.

Ключевые слова: крыса, печень, морфометрия, морфология, полипрагмазия, воспаление.

PARATSETAMOL, ASPIRIN, IBUPROFEN VA DEKSAMETAZON DORILAR TA'SIRIDA JIGARNING MORFOMETRIK KO'RSATKORLARINING QIYOSIY XARAKTERISTIKASI

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Annotatsiya: Maqolada paratsetamol, aspirin, ibuprofen, deksametazon kabi yallig'lanishga qarshi preparatlarni bir vaqtda qo'llash bilan laboratoriya hayvonlari jigaridagi morfologik o'zgarishlar tasvirlangan. Disse bo'shlig'ida gepatotsitlar va qon plazmasi o'rtasida moddalar almashinuvi sodir bo'ladi va fibrogenezda ishtirok etuvchi Kuper hujayralari ham shu bo'shliqda joylashgan.

Kalit so1zlar: kalamush, jigar, morfometriya, morfologiya, polipragmaziya, yallig'lanish.

Goal: To identify and evaluate the characteristics of the morphological changes in the liver parenchyma under the influence of anti-inflammatory drugs in polypharmacy.

Research objectives: determination of morphological changes in the liver of laboratory animals with the simultaneous use of anti-inflammatory drugs paracetamol, aspirin, ibuprofen, and dexamethasone;

examination and evaluation of normal morphological parameters of the liver; determination of morphometric changes in the liver with the simultaneous use of anti-inflammatory drugs paracetamol, aspirin, ibuprofen, and dexamethasone;

Comparative study of morphometric parameters of the liver under the influence of anti-inflammatory medications in normal conditions and polypharmacy.

Materials and methods. To study the effects of polypharmacy in experimental groups of white rats, the following anti-inflammatory drugs were used: aspirin, paracetamol, ibuprofen, and dexamethasone.

The study of macro- and micromorphology of liver tissue was carried out in rats under normal vivarium conditions.

The control group of rats was given 0.5 ml of distilled water intragastrically through a metal tube for 10 days.

The studies were conducted by the rules for the humane treatment of animals (No. 18 of 16.01.2018), regulated by the "Rules for the Use of Experimental Animals" approved by the Ethics Committee.

The rats taken for the experiment were divided into a control group—rats that received anti-inflammatory drugs: paracetamol 15 mg/kg, aspirin 5 mg/kg, ibuprofen 6 mg/kg, and dexamethasone 0.1 mg/kg. The doses of these drugs were calculated empirically and administered intragastrically for 10 days in the form of a solution.

Research methods

1. Method of morphological research.
2. Morphometric research method.
3. Statistical research method.

Result. The weight of the rats in the experimental group ranged from 187.7 g to 234.7 g, with an average of 220 g. The fourth experimental group of rats had a liver weight of 7.13 to 9.2 g, averaging 7.9±0.244 g. The liver length of a purebred rat in the fourth experimental group was 2.7-3.6 cm, with an average length of 3.16±0.1 cm.

The distance between the upper and lower edges of the liver of a white rat is 1.9-2.5 cm, on average 2.2±0.068 cm. The thickness of the liver of a purebred rat is 2.7-3.4 cm, on average 3.1±0.09 cm.

Conclusion. In the next histological preparation of rat liver, presented at the fourth stage of the study, using four types of preparations, migration of Kupffer cells around the vessels of the periportal vein was observed (60%, n=10) and phagocytosis of necrotic hepatocytes by Kupffer cells was observed (40%, n=8). Perisinusoidal spaces (disse spaces) had different widths and were practically not detected in the field of view (80%, n = 1111).

Perisinusoidal spaces (disse spaces) are narrow spaces between the walls of hepatocytes and sinusoidal capillaries in the liver lobe, the width of which is 0.2-1.0 μm. In the Disse space, the exchange of substances between hepatocytes and blood plasma occurs, and Ito cells, which participate in fibrogenesis, are also located in this space.

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