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DETECTION OF LIVER ECHINOCOCCOSIS IN DIFFERENT SCIENTIFIC EXPERIMENTAL STUDIES ON THREE MONTHLY WHITE RATS

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✓ Resume

Echinococcosis is one of the most serious parasitic diseases. Currently, echinococcosis is one of the most serious problems of medicine and the national economy not only in Uzbekistan, but also in many countries of the world. The article presents macroscopic and microscopic changes in the liver in liver echinococcosis of three-month-old white rats. In the experiment, liver echinococcosis was detected in 3 cases in the liver of 50 examined rats.

Key words: white rat, echinococcosis, liver, chitinous cover.

ВЫЯВЛЕНИЕ ЭХИНОКОККОЗА ПЕЧЕНИ ПРИ РАЗЛИЧНЫХ НАУЧНЫХ ЭКСПЕРИМЕНТАЛЬНЫХ ИССЛЕДОВАНИЙ НА ТРЕХ МЕСЯЧНЫХ БЕЛЫХ КРЫС

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✓ Резюме

Эхинококкоз - одно из самых серьезных паразитарных заболеваний. В настоящее время эхинококкоз - одна из самых серьезных проблем медицины и народного хозяйства не только Узбекистана, но и многих стран мира. В статье представлены макроскопические и микроскопические изменения в печени при эхинококкозе печени трехмесячных белых крыс. В эксперименте эхинококкоз печени выявлен в 3 случаях в печени 50 обследованных крыс.

Ключевые слова: белая крыса, эхинококкоз, печень, хитиновый покров.

УЧ ОЙЛИК ОҚ КАЛАМУШЛАРДА ТУРЛИ ИЛМИЙ ТАДҚИҚОТЛАРДА ЖИГАР ЭХИНОКОККОЗИНИНГ УЧРАШИ

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✓ Резюме

Эхинококкоз огир паразитар касалликлардан бири хисобланади. Хозирги пайтда эхинококкоз нафақат Ўзбекистонда, балки дунёнинг кўпгина мамлакатларида тиббиёт ва халқ хўжалигининг жиддий муаммоларидан бири бўлиб қолмоқда. Ушбу мақолада уч ойлик оқ каламушлар жигари эхинококкоз касаллигида жигардаги макроскопик ва микроскопик ўзгаришлар келтирилган. Тажрибада 50 та текширилган оқ каламушлар жигарида 3 холатда жигар эхинококкози аникланди.

Калит сўзлар: оқ каламуш, эхинококкоз, жигар, хитин қоплама.

Relevance

Echinococcosis of the liver is more common in Uzbekistan, and the incidence of echinococcosis per 1000 people is 6-9 cases. The number of echinococcal operations in the country is 1-1.5 thousand per year. Echinococcosis of the liver is the most common form of echinococcosis among various organs and tissues, and, according to some authors, it occurs between the ages of 44 and 88 years. Echinococcosis of the liver most often (65%) occurs at the age of 20-50 years and is more

common in women (68%) than in men. Echinococcal cysts are most often found in the right lobule of the liver.

Purpose of the study

The main goal of the study was to take precautions for employees of scientists in the field of medicine, including other industries who are engaged in and experimenting on white rats, to inform about the macro- and microscopic





manifestations of specific morphological changes in the liver of white rats with echinococcosis.

Material and methods

In experiments, echinococcosis of the liver was found in 3 cases in the liver of 50 examined rats, the isolated liver tissue was morphologically studied. Stained with hematoxylin and eosin of general morphology. For general morphology, 1 piece of each liver was cut into 1.5×1.5 cm and solidified in 10% neutralized formalin. After washing in running water for 2-4 hours, it was dehydrated concentrated alcohols in chloroform, then embedded in paraffin and prepared bricks. Cuts 5-8 µm in size were made from paraffin blocks and stained with hematoxylin Histological preparations eosin. examined under 10, 20, 40, 100 lenses of a light microscope and the necessary areas were photographed. Histological examination revealed no thickening of the liver capsule, changes in the cyst on the subcapsular section, the walls of the cyst are thicker than in the group with monopolar coagulation, the perifocal zone of the altered mucous membrane is surrounded by hepatocytes in a state of necrobiosis.

Result and discussion

The causative agent of echinococcus is the tapeworm-Echinococcus grwulosus olphi, which is an endoparasite.

Macroscopic view of the liver. The liver of rats is the largest, reddish-brown, round, irregularly shaped organ in the abdominal cavity. Most of the organ is located in the right hypochondrium. The cranial (diaphragmatic) surface of the liver and the caudal (visceral) surface in contact with the stomach are separated. In the center of the visceral surface is the hepatic portal - the entry point for blood vessels, nerves and the exit of the hepatic ducts. The liver is divided into six segments by interlobar scars: right (lateral and central), left (lateral and central), caudal and accessory [7, 23].

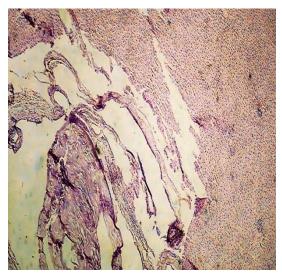
The echinococcal bladder has the shape of a cyst and is surrounded by a fibrous capsule. The parasite itself consists of 2 layers - internal (germinating) and external chitin (or cuticular). The fibrous capsule is not tightly attached to the chitinous layer. The cavity of the echinococcal cyst is filled with a nutrient fluid, in which it consists of larvae.



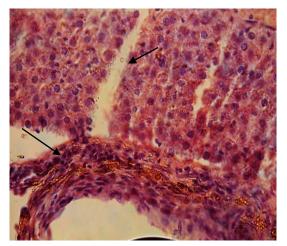
When viewed under a microscope, necrobiosis of peripheral tissues and liver cells located in an



echinococcal cyst, lymphohistiocytic infiltration are visible, chitinous shell and egg cells are found.



General form. Echinococcal cyst.



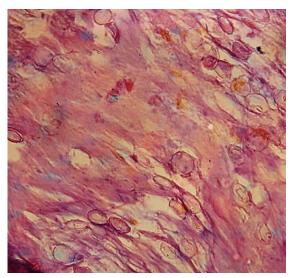
Separating cyst layer with liver tissue.



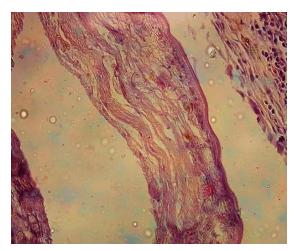
In experiments in white three-month-old rats, echinococcosis of the liver was found in 3 cases in the liver of 50 examined rats, the isolated liver tissue was morphologically studied. We ask scientific researchers to observe precautions, rules of asepsis and antiseptics in laboratory studies on white rats.

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Egg cells. Chitinous shell.



Chitinous layer.

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