



ECHINOCOCCOSIS OF LIVER OF THREE MONTHLY WHITE
RAT

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Summary. *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.*

ЭХИНОКОККОЗ ПЕЧЕНИ ТРЕХ МЕСЯЧНОЙ БЕЛОЙ КРЫСЫ

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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 КАЛАМУШ ЖИГАРИ ЭХИНОКОККОЗИ

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Аннотация. Эхинококкоз огир паразитар касалликлардан бири хисобланади. *Хозирги пайтда эхинококкоз нафакат Узбекистонда, балки дунёning купгина мамлакатларида тиббиёт ва халқ хужалигининг жиоддий муаммоларидан бири булиб колмокда. Уибу мақолада уч ойлик оқ каламуилар жигари эхинококкоз касаллигидаги жигардаги макроскопик ва микроскопик ўзгаришилар келтирилган. Тажрибада 50 та текширилган оқ каламуилар жигаридаги 3 холатда жигар эхинококки аникланди.*

Калим сўзлар: оқ каламуши, эхинококкоз, жигар, хитин қоплами.

Relevance. Uzbekistan is an endemic outbreak of echinococcosis, and the incidence of echinococcosis per 1,000 people is 6-9 per 1,000 people. The number of echinococcal operations in the country is 1-1.5 thousand per year. Hepatic echinococcosis is the most common cause of echinococcal disease of various organs and tissues, and occurs between the ages of 44 and 88, according to some authors. Hepatic echinococcosis is most common (65%) in women aged 20-50 years, and more common in women than in men (68%). Echinococcal cysts are most commonly found in the right ventricle of the liver.

The purpose of the study. The main purpose of the study was to clarify the specific morphological changes that occur under the influence of echinococcus in the liver of white rats encountered in experimental practice.

Materials and methods. In the experiment, liver echinococcus was detected in 3 cases in the liver of 50 examined rats. The isolated liver tissue was studied morphologically. It was stained with hematoxylin and eosin stain of general morphology. For general morphology, 1 piece of each liver was cut at 1.5x1.5 cm and solidified in 10% neutralized formalin. After washing for 2-4 hours in running water, it was dehydrated in increased concentrations of alcohols and chloroform, then paraffin was poured and the bricks were prepared. Incisions of 5–8 μm were made from paraffin blocks and stained with hematoxylin and eosin. Histological preparations were studied under 10, 20, 40, 100 lenses of a light microscope and the required areas were photographed. Histological examination revealed no thickening of the liver capsule. In the subcapsular section, cystic changes were found, the cyst

walls were thicker than in the group with monopolar coagulation, perifocally mucosal transformation zone was surrounded by hepatocytes in necrobiosis state.

Inspection results 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 place where blood vessels, nerves enter, and hepatic ducts exit. The liver is divided into six sections using interlobar scars: right (lateral and central), left (lateral and central), caudal and accessory [7, 8]. The echinococcal bladder is cyst-shaped and surrounded by a fibrous capsule. The parasite itself consists of 2 layers - inner (germinative) and outer chitin (or cuticular). The fibrous capsule is not firmly attached to the chitin layer. The cavity of the echinococcal cyst is filled with a nourishing fluid, in which the girl floats bubbles, scolexes, secretory capsules.

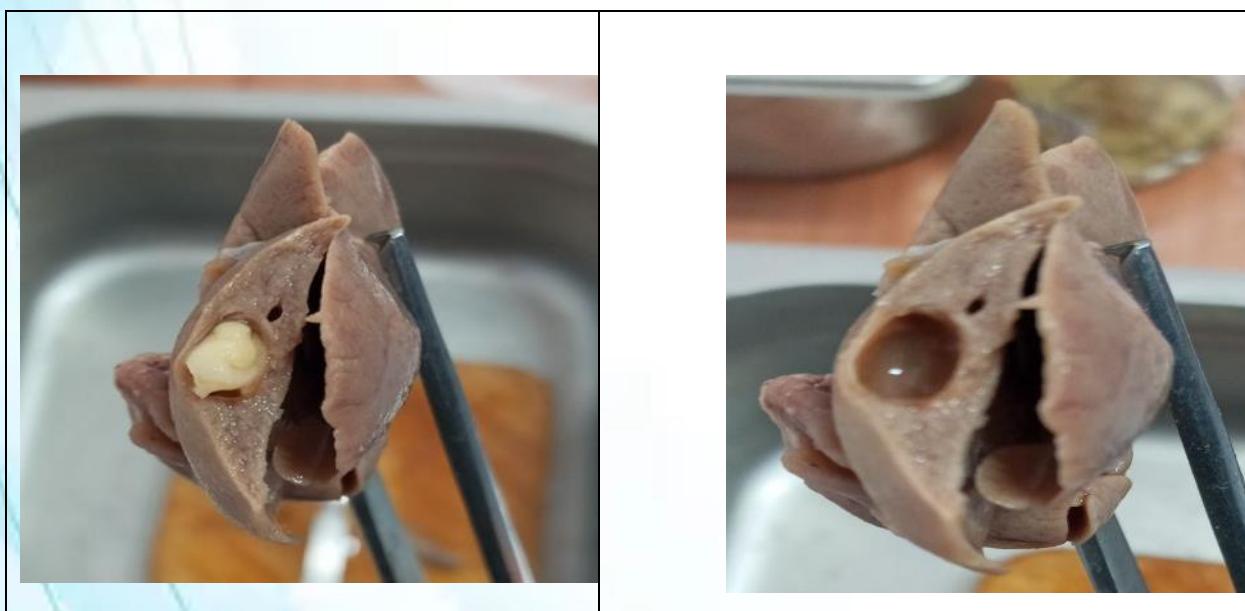


Figure 1. Macroscopic view of the liver of a three-month-old rat.

When viewed under a microscope, necrobiosis of peripheral tissue and liver cells, located in the echinococcal cyst, lympho-histiocytic infiltrations are seen. Chitin shell and egg cells are detected.

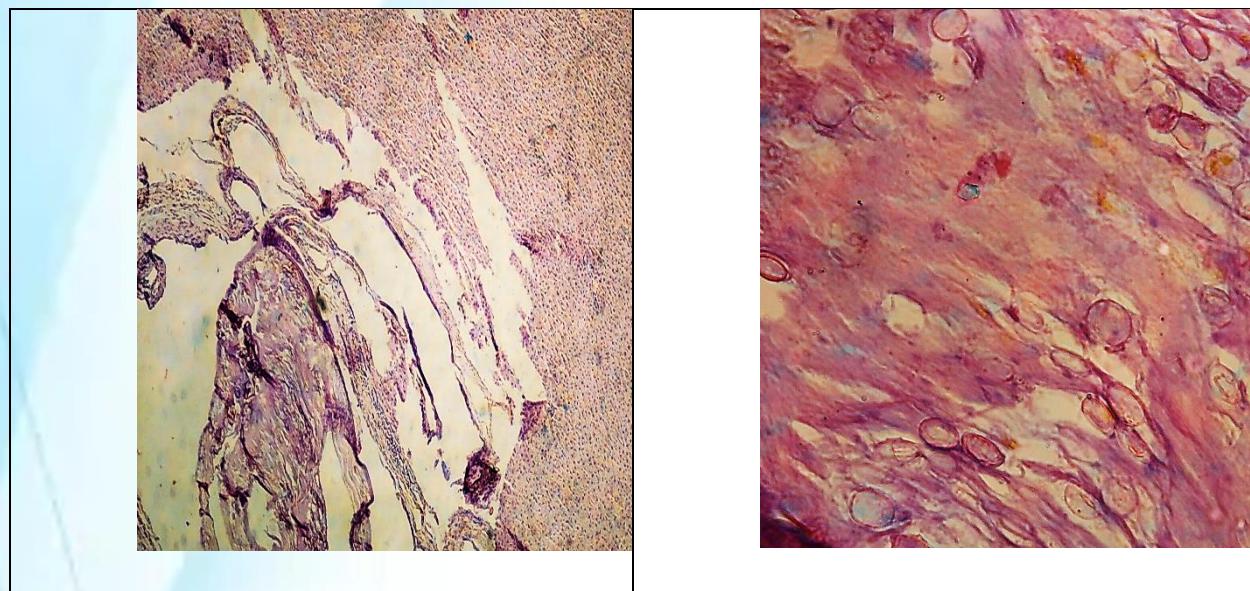


Figure 2. Microscopic view of the liver of a three-month-old rat. General view. Echinococcal cyst. Egg cells. Hit the curtain.

Conclusion. In the experiment, liver echinococcus was detected in 3 cases in the liver of 50 examined rats. The isolated liver tissue was studied morphologically.

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