

# PATHOMORPHOLOGICAL CHANGES IN LIVER THE OF GEESE AS TO NEMATODOSIONS ASSOCIATIONS INVASIONS

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Set pathomorphological changes in the liver of geese for the gelmintosis associative invasions which macroscopically liver has increased, its descrepitness and uneven coloration. Microscopically intraparts central veins, capillaries, as well as a large vein of interparts connective tissue of the liver is highly advanced and overflowing with blood. Most of the hepatocytes was in a state of granular and hydropicar dystrophy. Rarely registering atrophy and necrosis of hepatocytes.

**Key words:** geese, amidostomosis, ganguleterakosis, trichostrongylosis, associations, liver, pathomorphological changes.

Pathologic-anatomic diagnosis of helmintoses covered in small quantities and is devoted to the study of mostly the individual parasitic diseases of chickens and turkeys [1, 6]. There are only isolated reports of patho-morphological changes in organs and tissues of the geese for associations invasions [4]. Scientists claim parasitical mixt-invasion bird is not only mechanical summa pathogenesis of invasive elements, but also a dynamic disease with impaired function of the digestive system and respiratory system, metabolism, with specific changes in the fermentation activity of the intestine, and also characteristic of patomorfological featured in the body of patients animals [2, 3, 5].

Consequently, there is a link between the activators parazitosis and directly from the body the bird. In places its location each of them operates the patogenitet organs and tissues of the host, breaking the physiological balance of the body.

The purpose of the research was the study of the pathological-anatomical and hystomorphological changes of the liver in geese in nematodosions associations invasions.

**Materials and methods research.** Studies were conducted on the basis of scientific laboratories departments: Parasitology and veterinary-sanitary expertise; pathological anatomy and pathophysiology, Faculty of veterinary medicine of the

Poltava State agrarian Academy. During pathological-anatomical dissection studied patomorfological liver changes 16 corpses goslings during the age of 1.5 – 3.5 months from farms in the Poltava region, the dysfunctional on associative invasions.

Was pathological-anatomical studies on cadavers goslings during affected amidostomozno-ganguleterakosis invasion. For the study of patomorfological changes in the ganguleterakozno amidostomozno-trihostrongilosis invasions geese us verifiable material from corpses. Pathologic-anatomical dissection performed by full gelmintologičnogo dissection of individual bodies K. Skryabin (5). Material for histological studies were pieces of liver.

Selected pieces of fixed in 10 % neutral aqueous solution of formalin. Technical processing of the material held on the standard methodology (N. A. Yurina et al., 1995) (7). Obtained by sections 5-7 microns thick painted on hematoxylin eosin and Karaci. Mikrophotographical was carried out with the use of the microscope "Biolam-17" and the camera "Canon Power Shot A540. The general structure, the appearance of tissues and specific morphological changes investigated in increments x 56, x 80, x 120, x 400.

**The research results and their discussion.** The research of the liver by amidostomozno-ganguleterakosis invasion, the overwhelming number of cases, the slight increase in organ, descrepit, uneven coloring areas from dark brown to light glinistogo color. With crosscut vessels stood out rare venous blood. Parenchyma give little remove. Gall bladder increased in 4-6 times, contained a slippery bile is a dark brown color. The surface mucosa of the gallbladder is covered by a considerable number of gray-yellow mucus. During the study of gall bladder on histological examination level noted a sharp widening gaps in veins and capillaries of sine, their blood. Connective tissue surrounding blood vessels infiltratical cells were rare. In liver hepatocysts were mostly in a State of hydropic dystrophya (fig. 1).

In the cytoplasm of the past are vacuoles filled outer fluid. In some parts of the cytoplasm of hepatocytes fully completed mikrovakuola and reminiscent of the "beer honeycombs. At the same time in the interpert connective tissue, especially near blood vessels registering single eosinophili. Some liver cells have atrophied and

destroyed with the formation of necrotic cells. Enlargement of the bile ducts are more advanced. However, according to amidostomozno-ganguleterakozno-trihostrongilosis associative invasions in geese registered an increase of the liver. The last time the dark-red coloring with the individual patches of cells is a grayish color, had a smooth, shiny capsule. Consistency descrepites. In terms of the structure of the organ is fuzzy. Parenchyma give little scraper. In the context of the liver with venous blood vessels and pererizanih stood out.

Gall bladder increased in 4-5 times, filled with thick bile dark yellow color. Mucous membrane slightly nabrâkla, locally ergorgement. Liver tissue around the gallbladder bile-colored, small dark-brown color with a yellow tint. Microscopically intraparts central veins, capillaries, as well as a large vein of interpart connective tissue of the liver is highly advanced and overflowing with blood. In some areas of the registered output of red blood cells outside of blood vessels and small gemoragyi (fig. 2).

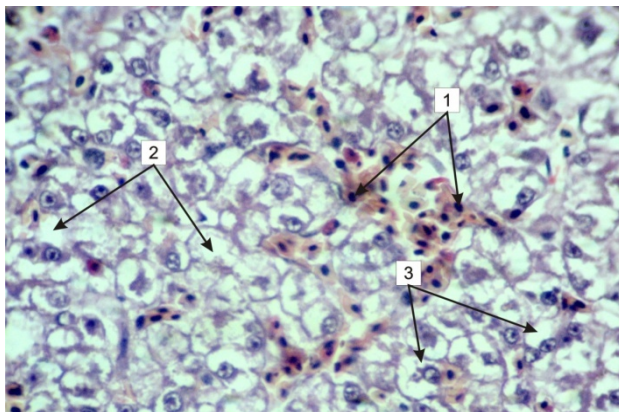


Fig. 1. Gistopreparat liver geese age 3 months for amidostomosno-ganguleterakosnoï association invasion: 1 – diapedezni hemorrhage, 2 – necrosis of hepatocytes, 3 – gidropihna degeneration of hepatocytes (with Hematoxylin Karaci and eozin, x 200)

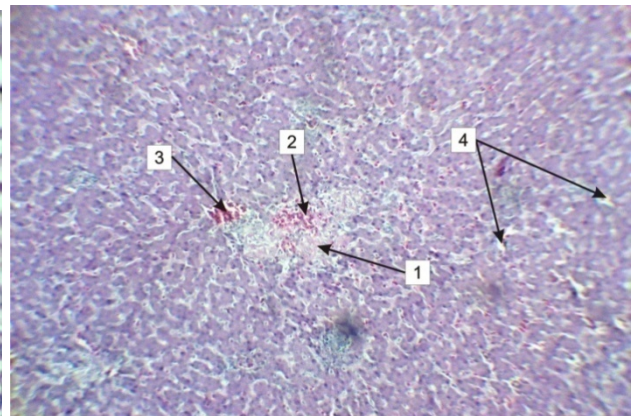


Fig. 2. Gistopreparat liver geese the age of 2.5 months for amidostomosno-ganguleterakosno-trihostrongilosis invasion: 1 – necrosis of hepatocytes, 2 – diapedezni hemorrhage in the zone of necrosis of hepatocytes, 3 – extension and the blood veins, 4 – swelling of the mizbalochnoi connective tissue (with Hematoxylin Karaci and eozin, x 120)

Interparty spaces are enlarged, extended due to swelling. Periportalna connective tissue focus infiltrated lymphoid mononuclear cell elements. Registering a single eosinophil. Hepatocytes, clumped as a result of expansion gaps of capillaries and swelling Interparty connective tissue, in a State of atrophy. In the following sections of the liver structure of the hepatocytes broken. Some liver cells have atrophied and destroyed with the formation of areas of necrosis. In the past watched full diskomplexical girder structure, a large number of red blood cells, the remnants of the cells and lymphocytic infiltrates. Most of the hepatocytes were in a State of granular and hydropic dystrophies. Mucous membrane of most bile ducts in a State of catarrhal inflammation.

### Conclusions

1. In the infested geese for associative infestations found engorgement in the venosis, local necrosis, and albuminous dystrophy of the liver.
2. Found pathomorphological changes pointed out that nematodosis had predominantly chronic course.

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