Національний університет біоресурсів і природокористування України

Факультет ветеринарної медицини

НДІ Здоров'я тварин

«ЄДИНЕ ЗДОРОВ'Я – 2022»

Матеріали Міжнародної наукової конференції

22-24 вересня 2022 р.
НУБіП України, м. Київ

СЕКЦІЯ 1. «ДІАГНОСТИКА ХВОРОБ І ТЕРАПІЯ ТВАРИН В СУЧАСНІЙ ОСВІТІ, НАУЦІ І ПРАКТИЦІ».

UDC:636.7.09:616.36

LIVER STIFFNESS RATING USING TRANSIENT ELASTOGRAPHY IN DOGS - PRELIMINARY RESEARCH

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Liver elastography is a modern method that enables the non-invasive assessment of the hardness of the liver tissue. For several years it has been widely used in human medicine to assess liver fibrosis. So far, few studies have been carried out in veterinary medicine to assess the possibility of using them in animals.

The aim of this study was to evaluate the site for an elastographic examination, and to measure the hardness of the liver tissue in healthy dogs.

The study was carried out on 10 dogs of different breeds, age and of both genders, from 1 to 8 years old. Before testing, the animals were fasted for 12 hours. The animals were patients of the Department of Internal Medicine Veterinary Medicine University of Environmental and Life Sciences,who underwent screening for liver diseases. No changes in the activity of: AST, ALT, ALP and GGT were found in all investigations. In animals, no changes in the liver were found on ultrasound examination. Elastographic examination was performed through the intercostal space in the right and left lobes of the liver. Twelve measurements of liver hardness were performed with the FibroScan device (Echosens, Paris, France). The probe S was used in small animals and in larger M.

In 3 tested animals the discomfort during the test was observed. It was caused by the impulse genereted by the probe. After the animal became habituated, the test did not result in any adverse reaction from the animal. One animal developed redness at the test site that disappeared after 10 minutes.

Research has shown that it is technically easier to perform on the left side of the animal between the xiphoid process and rib. Measurement in the right lobe of the liver was more difficult to perform due to the location of the gallbladder and was impossible in most cases. The mean liver hardness of normal liver tissue ranged from 2 to 4.4 kPa. A similar value is considered normal in humans.