

DIAGNOSTIC TECHNOLOGIES

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Abstract: *Diagnostics, as a branch of clinical and veterinary medicine, focuses on the identification, treatment, and prevention of diseases through the examination of the body. It encompasses several core areas: the methodology of collecting patient history and examining physical complaints, the study of symptoms (semiotics), and the doctor's diagnostic reasoning. Diagnostic methods include subjective patient interviews (anamnesis), objective examination techniques (e.g., palpation, percussion, auscultation), as well as specialized diagnostic tools for assessing sensory organs, nerve activity, temperature, and heart and vascular functions. Modern technologies such as ultrasound, magnetic resonance imaging (MRI), computed tomography (CT), and radioactive isotopes have expanded the diagnostic toolkit. Laboratory tests involving blood, urine, and other bodily materials are essential for identifying underlying conditions, while bacteriological, immunological, and serological methods aid in disease detection. Veterinary diagnostics similarly involve both general and specific examinations of animals, focusing on clinical and laboratory analyses of bodily fluids, tissues, and organs. This comprehensive approach, combined with advancements in telemedicine, enhances diagnostic accuracy and treatment outcomes for both humans and animals.*

Keywords: *Clinical diagnostics, veterinary diagnostics, anamnesis, diagnostic methods, memiotics, medical examination, ultrasound, bacteriological methods, immunological methods, veterinary medicine, telemedicine*

Diagnostics (yun. diagnostics — capable of detection) is a branch of Clinical Medicine and veterinary medicine that studies the methods of examining the body in order to identify the disease, develop measures to treat it and prevent it. D. as a science, it is divided into three main parts: 1) the methodology for collecting and studying the patient's complaints, the history of the disease and life, as well as diagnostic techniques, that is, methods of examining the patient; 2) the doctrine of various signs (symptoms) observed in diseases (semiotics); 3) the doctor's method of discussion, that is,



When examining a patient, first of all, his sensations, when the disease began and how it went, the conditions of Labor and life are either absorbed from himself, or from close people (from his mother when examining a baby child), that is, Anamnesis accumulates. Be able to collect Anamnesis and correctly describe the patient's medical in historiobjective

examination, the patient is examined and techniques of palpation, percussion, auscultation are used. In the examination of the nervous system and sensory organs, special methods are used to anise reflexes, various types of sensitivity, visual and auditory, taste and olfactory cognitive acuity. Study of higher nerve activity D.of important functions. In addition, the temperature and parts of the torso are measured (thermometry and anthropometry), various mirrors (ear, nose, hiccups, vaginal mirrors) and optical instruments are used in the examination of the organs located further inside (eye examination — o phthalmoscope, esophageal vision — esophagofibroscope, gastrointestinal examination-gastroduodenofibroscope, colonoscope, etc.). The importance of recording heart and vascular movements on paper or photo-film (cardiography and sphygmography)is significant. Recording changes in electrical potentials in the heart and brain (electrocardiography and electroencephalography Diseases of the internal organs at the end of the 20th century D.Sida ultrasound techniques, magnetic resonance apparatus, methods of Computed Tomography began to be widely used. Radioactive isotopes are applied to anicize some diseases. In this, the state of breathing, conic circulation, excretory organs and endocrine systems, as well as the violation of the alma-circulation of substances are anicized. Lab.at blood, urine, excrement, sputum, as well as materials that have been punctured the esophagus, liver, spleen, lymph nodes are subjected to microscopic, physical and chemical-viy examination (see biopsy). Bacteriological, immunological and serological methods D, which are carried out for the purpose of anicization of microbes and immunetna that provoked the disease. of great importance for. Hoz. radiotelemetric D. the method (remote measurement of an indicator) has been developed. In some cases, the disease may have few symptoms, be confusing, or not typical. In such cases, the differential is D. the method is used: the doctor, having perfectly analyzed whether the symptoms found in the patient correspond to the supposed diseases, goes to write off the estimated diseases and in this way, upon reaching a certain conclusion, makes a diagnosis of the disease.Functional disorders D.when diagnosing Si, the causes of major and comorbid diseases and complications are anicized, the degree of disruption of the system and organs are determined, the physiological characteristics of the examined patient that differ from another patient with such a disease are taken into account. Pathologo-anatomical D.at the patient is diagnosed after death based on the data that ruptures him and the taxilization of the tissue biontate. D.ni improvements can use telecommunications, internet and electronic communications.

Veterinary D.si will be general and special. General D.at the sick animal is registered, analyzes are collected, the mucous membrane, lymphatic tu-guns, rungs, skin is examined, the temperature is measured, etc. k. Special D.and at internal organs, mine, urine, things in the stomach and intestines, spinal bone, manure, etc. checked.

REFERENCES:

1. Fletcher, R. H., & Fletcher, S. W. (2012). *Clinical Epidemiology: The Essentials*. Lippincott Williams & Wilkins.
2. Hall, J. E. (2020). *Guyton and Hall Textbook of Medical Physiology*. Elsevier.
3. Kumar, V., Abbas, A. K., & Aster, J. C. (2020). *Robbins & Cotran Pathologic Basis of Disease*. Elsevier.
4. Jacobson, E. R. (2007). *Veterinary Clinical Pathology: An Introduction*. Blackwell Publishing.
5. Aiello, S. E., & Moses, M. A. (2016). *The Merck Veterinary Manual*. Merck & Co., Inc.
6. Silverman, J. D., Kurtz, S. M., & Draper, J. (2013). *Skills for Communicating with Patients*. CRC Press.
7. Nuttall, T. J., & Cole, L. K. (2021). "Veterinary Diagnostic Dermatology: A Clinical Guide to Testing," *Veterinary Clinics of North America: Small Animal Practice*, 51(1), 23-41.
8. O'Connor, A. M., Sargeant, J. M., & Dohoo, I. R. (2014). "Clinical Diagnostic Decision Making in Veterinary Medicine," *Preventive Veterinary Medicine*, 113(3), 249-257.
9. Rishniw, M., & Pion, P. D. (2016). "The Role of Telemedicine in Veterinary Diagnostics," *Journal of Veterinary Internal Medicine*, 30(1), 280-287.