

## SUMMARY

of the doctoral thesis entitled:

### RESEARCH ON IMAGING DIAGNOSIS OF DIGESTIVE DISEASES IN DOGS

PhD-student: **LUPU Vlad-Traian**

Scientific coordonator: ***Professor, PhD VLĂGIOIU Constantin***

**KEYWORDS:** digestive system, clinical diagnosis, radiological examination, ultrasound examination, computer tomography examination

Digestive disorders in dogs are a common problem in veterinary medical practice, and accurate diagnosis is essential to identify possible causes and implement an appropriate treatment plan. In this presentation, I will address the main methods and techniques used in the diagnosis of digestive disorders in dogs, with the aim of increasing efficiency and accuracy in diagnosis.

The correct diagnosis of digestive disorders in dogs is essential to be able to provide the appropriate treatment and prevent further complications. With the help of a detailed history, physical examination, and various diagnostic techniques, the veterinarian must accurately identify the cause of the dog's digestive condition in order to begin the treatment plan as soon as possible.

Diagnosing digestive conditions in dogs can be challenging because symptoms can be non-specific and indicate several different conditions. In this regard, there are a number of diagnostic techniques and methods available to help identify the causes and digestive conditions in dogs, such as physical examination, blood tests, radiological examination, ultrasound examination and computed tomography examination.

**Thesis structure.** The doctoral thesis with the title "**Research on imaging diagnosis in digestive diseases in dogs**", following the rigors of the legal provisions, is structured in two parts: the first part comprising the bibliographic study, and the second part the own research.

**Section I: The bibliographic study**, includes a number of 32 pages, which represents 27,59 % of the structure of the thesis, being made up of 3 chapters, which present general anatomical data about the dog's digestive system followed by the presentation of the physiology of the system digestive, the pathology of the digestive system and detailing the paraclinical investigation methods used to establish the main etiologies of the dog's digestive pathologies. This part contains 13 figures.

**Section II: Personal research**, includes a number of 84 pages, which represents 72,41 % of the thesis structure, being made up of 2 chapters, which include the purpose of the work, the description of the materials and methods used, presentation of the obtained results and partial conclusions, followed by the general conclusions and bibliography. This part includes 1 table, 4 graphs and 46 figures.

The purpose and objectives of the research used in carrying out the studies of the diseases of the dog's digestive system are presented. Our own research included a number of 995 dogs with digestive disorders, aged between 4 months and 18 years, of which 509 males and 486 females, cases that were examined from a clinical and paraclinical point of view at the Link-Vet Veterinary Clinic from Bucharest, during 2017-2022. Of these, a number of 291 cases (134 males and 157 females) presented multiple pathology. Imaging diagnostic methods (radiological examination, ultrasound examination, computed tomographic examination) and laboratory methods (biochemical, hematological, cytological, histopathological) are presented and described here.

**Chapter IV** presents the results obtained in the diagnosis of conditions of the pre-diaphragmatic digestive system. 355 cases were evaluated, which were divided by region: oral cavity (169 cases), pharynx (30 cases), esophagus (156 cases). All cases were clinically and paraclinically examined at the Link-Vet Veterinary Clinic in Bucharest.

A number of 169 pathologies were found at the oral cavity level. Of these, 115 cases were diagnosed with inflammatory/infectious processes, 35 cases with trauma, 12 cases with neoplastic processes and 7 cases with congenital anomalies.

At the level of the pharynx, a number of 30 cases were diagnosed, of which 12 cases with inflammatory/infectious pathology, 11 cases with pharyngeal stenosis, 6 cases with pharyngeal paralysis and 1 case with pharyngeal trauma.

At the level of the esophagus, 156 pathologies were diagnosed, of which 40 cases with esophageal reflux, 36 cases with inflammatory/infectious processes, 32 cases with esophageal dilations, 16 cases with esophageal stenoses, 11 esophageal obstructions, 11 cases with traumatic processes and 10 cases with megaesophagus.

To establish the diagnoses, the main diagnostic imaging method used was the radiological examination in 237 cases, followed by the computer tomography examination in 118 cases.

**Chapter V** presents the results obtained in the diagnosis of disorders of the postdiaphragmatic digestive system. 931 cases were diagnosed with pathologies in the post-diaphragmatic digestive system, which were divided into disorders of the digestive organs and accessory glands. The cases were clinically and paraclinically examined at the Link-Vet Veterinary Clinic in Bucharest.

In the sub-chapter presenting gastric pathologies, 175 cases were recorded, of which inflammatory/infectious processes were highlighted in 152 cases, gastric dilations in 16 cases, and neoplastic processes in 7 cases.

The sub-chapter dedicated to intestinal diseases includes a number of 198 cases, divided into intestinal dilatations 23 cases of which 14 in the small intestine and 9 in the large intestine, infectious enteritis 82 cases of which 46 gastroenteritis and 36 enteritis; hemorrhagic enteritis 22 cases, chronic enteritis 32 cases and intestinal obstruction 39 cases.

Liver pathologies were diagnosed in a number of 194 cases, of which vascular anomalies (porto-systemic shunts) were revealed in 78 cases, liver cirrhosis in 18 cases, neoplastic processes in 23 cases, liver cysts in 12 cases, liver abscesses in 8 cases, drug-induced hepatomegaly in 8 cases, hepatic steatosis in 19 cases, hepatitis in 28 cases.

Changes in the topography of organs were diagnosed in 15 cases (14 diaphragmatic hernias and 1 peritoneo-pericardial hernia).

At the level of the gallbladder, a number of 294 cases were diagnosed, of which the following pathologies were highlighted: biliary sludge 175 cases, cholecystitis 56 cases, gallstones 24 cases, diseases of the bile ducts 21 cases and mucocele 18 cases.

Pancreatic pathologies were diagnosed in a number of 55 cases, of which 26 cases showed acute pancreatitis, 18 cases chronic pancreatitis and 11 cases neoplastic processes.

To establish the diagnoses, the main diagnostic imaging method used was the abdominal ultrasound examination (691 cases), followed by the computer tomographic examination (173 cases) and the radiological examination (67 cases).

In the last part of the doctoral thesis we find: the final conclusions obtained from the diagnoses established in this study, followed by some recommendations regarding the diagnosis of the dog's digestive system ailments, followed by the bibliography, the list of tables, figures and graphs and the list of publications.

