

SKIN TUMORS IN DOGS AND CATS: A REVIEW

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Summary

In domestic animals, skin diseases are often diagnosed in small animal general practice (20-75% of the cases). Due to an uncontrolled proliferation of cells, that are unable to act accordingly to the signals that rule a normal cell behavior (division, growth), tumors develop. Consequently, this will lead to an invasion of healthy organs and tissues. Some of these cells will even metastasize to different areas of the body. For dogs and cats, tumors can be neoplastic or non-neoplastic. For proliferative lesions that involve an increase in the cutaneous volume, the term skin tumor is used. Considering that the skin is the largest organ, acting as an intermediary between the external environment and the body, it's easy to understand why there is such a high incidence of skin neoplasms (the most diagnosed neoplastic disorder in dogs and cats are skin tumors, approximately 30% of all diagnosed tumors). Tumors of the subcutaneous tissue and the skin represent 33% of tumors in dogs and 25% of tumors in cats, out of all diagnosed tumors. In dogs, the majority are benign (70-80%), while in cats, more than half are malignant (50-65%). Metastatic lesions are not common, and most tumors are primary. When it comes to the incidence of skin tumors, dogs show a lower mean age than cats, in both males and females. The most common skin tumors in dogs are (descending): mast cell tumors, lipomas, and histiocytomas, and in cats are (descending): basal cell tumors, mast cell tumors, and squamous cell carcinomas.

Keywords: tumor, skin, veterinary oncology, dog, cat.

USING THE SEROTONIN AND CORTIZOL VALUES AS A TOOL FOR WELL-BEING ASSESSMENT IN DOGS

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Summary

Neurotransmitters like serotonin (5-HT) and steroid hormones (glucocorticoids) have a central role in animal behavior. Serotonin is involved in neuronal excitability regulation and affects mood, cognition and behavior. A large number of psychopharmacological data implicate serotonin in animal models of depression and anxiety. The increased hypothalamic-pituitary-adrenal (HPA) axis response is one of the most reported physiological responses to animal stress. Cortisol, which is secreted by the cortex of the adrenal gland, is the main glucocorticoid hormone in dogs. Cortisol plays a primary role in the acquisition, deposition and mobilization of energy and, at high levels, it modulates changes associated with stress. In dogs, increased plasma cortisol levels can indicate acute stress from sudden fear-inducing stimuli. Through this paper, an attempt was made to highlight the feeling of well-being in dogs, expressed by the values of serotonin and cortisol in the blood flow, correlated to positive and negative stimuli. Serotonin, which is also called the "hormone of happiness" was the reason why we wanted to determine its variations depending on the positive or negative stimulus applied to a dog. In this study, 5 dogs were included, which were exposed to positive and negative stimuli. The blood samples were collected immediately after the application of each stimulus, from the cephalic vein, in vacutainers without anticoagulant. The analysis of blood samples and the determination of serotonin and cortisol was carried out at a private laboratory. After the application of a positive stimulus, the mean values of serotonin were 341.43 ug/l, cortisol 2.0 ug/ml, significantly lower ($p \leq 0.01$) with 30.81 ug/ml and 0.6 ug/ml ($p \leq 0.05$) compared to the application of the negative stimulus serotonin when the serotonin and cortisol values increased to 372.24 ug/l, as well as cortisol, at 2.6 ug/l. After the dogs calmed down, serotonin and cortisol values were 399.87 ug/l and 2.1 ug/dL) compared to the state induced by the negative stimulus. Between the application of the positive stimulus and the induction of the calm state following the negative stimulus, the significant difference of 58.44 ug/ml ($p \leq 0.01$) was recorded only for serotonin, cortisol having appropriate and insignificant values ($p \geq 0.05$)

Keywords: cortisol, serotonin, dog, behavior.

ASSESSING THE BEHAVIOUR OF SHELTER DOGS TO DIFFERENT STIMULI

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Summary

Assessing the behavior of dogs in shelters plays an important role in the adoption process. The literature describes a series of tests, designed to select dogs that can be adopted by those who previously need behavioral therapy. In this study, carried out in a dog shelter in Timisoara, a behavioral test was applied in which the dogs were exposed to natural/artificial stimuli. By natural stimuli we mean the reaction of dogs to contact with the examiner, in the socialization test, and the artificial stimulus was represented by a doll, which simulates contact with a child, in the situation when the dog will be adopted. From 40 dogs subjected to this experiment, the majority, 35, responded in a favorable way to both the natural and the artificial stimulus: 20 to human contact and 15 to the doll. This favorable response is quantified by several criteria: the position of the ears, of the tail, approach, jump on the evaluator, on the doll, smell, lick, play, wag the tail, roll on back. The negative reactions were expressed by 5 dogs toward human and doll, such as: growling, barking, running into a corner of the room, tremble, show teeth, ears back, piloerect, lip lick, biting the doll. Through this experiment we found that dogs in shelters have a constant need to socialize with humans, so even in the presence of a doll, they show positive behaviors.

Keywords: doll, human, dog, behavior, shelter.

**RESEARCH ON THE IMMUNOGENIC EFFECT OF THREE
VACCINES USED IN THE PROPHYLAXIS OF INFECTIOUS
BURSAL DISEASE**

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Summary

Infectious bursal disease (IBD) is caused by the IBD virus, which has a particular impact on poultry production. In this study, the immunogenicity and the immunosuppression effect of three live-attenuated vaccines (A, B and C), which have different levels of attenuation, were determined in 11 days old Cobb 500 broiler chicks. The vaccines were administered via drinking water. The levels of antibodies (Ab) were determined in the serum of vaccinated chicks on the 7th, 14th, 21st and 28th-day post-vaccination using the enzyme-linked immunosorbent assay (ELISA) method. The results obtained show that all three vaccines induced the synthesis of antibody titres that ensure an adequate level of protection, starting with the interval 7-14 days post-vaccination and later, during the entire monitored period, which corresponds to the interval of maximum susceptibility to the infection. However, the level of antibodies recorded on the 7th-day post-vaccination does not provide protection against natural infection, also vaccine C determined the most significant drop in the Abs concentration on the 7th-day post-vaccination.

Keywords: infectious bursal disease, poultry, vaccine, ELISA.

POSTOPERATIVE OUTCOME OF DOGS WITH IVDD DISEASES IN LUMBAR AREA USING REHABILITATION METHODS

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Summary

Intervertebral disc disease (IVDD) is a common cause of neurologic dysfunction in dogs, the IVDD can lead to cervical and thoracolumbar intervertebral disc (IVD) herniation, degenerative lumbosacral stenosis, and myelomalacia. In IVDD of the lumbar spine, the animal will present unilateral lameness or paraplegia. Current treatments for IVDD in dogs include conservative treatment and surgery that requires decompression of the spine. Choosing the type of treatment was correlated with the clinical signs response of the animal to the stimulus and addition with the financial status of the owners. This study included 36 dogs, of which 24 received conservative treatment, 8 underwent surgical hemilaminectomy and 4 were euthanized. Postoperative management is recommended and may include: physiotherapy, hydrotherapy, acupuncture, and electroacupuncture. This article presents the evolution of dogs with IVDD after combining therapeutic methods with postoperative rehabilitation therapy.

Keywords: Intervertebral disc diseases, dog, treatment, rehabilitation.

SEROPREVALENCE OF *TOXOPLASMA GONDII* INFECTION IN WILD BOAR IN TIMIȘ COUNTY - PRELIMINARY RESULTS

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Summary

Toxoplasmosis is a protozoan disease caused by *Toxoplasma gondii*, a worldwide distributed, intracellular apicomplexan protozoan, that affects all homeothermic animals, including humans. The present study aimed to establish the seroprevalence of *T. gondii* infection in wild boars in Timiș County. The samples were collected from 85 wild boars which were either hunted or found dead on the hunting grounds. The samples were collected during the period 2020-2021, from 29 hunting funds from Timiș County. Serum samples were examined through the ELISA test, using the ID-VET Screen Multi-species kit for IgG anti-Toxoplasma antibodies. Out of 85 examined samples, 80% showed anti-Toxoplasma IgG antibodies. All 68 positive samples were taken from adult wild boars, none from young or subadult animals. There were no significant differences between seropositivity in males compared to females. Significant differences were observed between the different age groups. Considering all the animals from the 29 hunting funds, we found positive evidence in animals from 26 hunting funds (89.7%) while the animals from the other three hunting funds (10.3%) were negative.

Keywords: wild boar; *Toxoplasma gondii*, ELISA, seroprevalence.

**PREVALENCE OF *TOXOCARA* INFECTIONS IN DOGS FROM
RURAL AREAS IN SOUTHWESTERN OLTENIA AND
ASSOCIATED RISK FACTORS**

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Summary

The roundworm *Toxocara canis* is the most common zoonotic parasite of the dog (natural reservoir) in many areas of the world, including Romania, and is important for public health. The present study aimed to identify the prevalence and associated risk factors for *Toxocara* infections in dogs from rural areas in Southwestern Oltenia. A total of 100 faecal samples were collected from dogs, in three rural areas, from Gorj and Vâlcea counties, aged between 3 months and 14 years. To detect helminth eggs, all samples were examined by direct smear and faecal flotation method (Willis). All owners have completed an epidemiological file with questions related to the dog's lifestyle, environmental hygiene, contact with animals or humans, and the type and mode of feeding and watering. There were questions about the number of deworming, the products used, and the physiological status. Data analysis was performed by GraphPad, QuickCalcs, Fisher's exact test, and Office Excel 2016. The overall prevalence of *Toxocara* infections was 73% (73 out of 100). Out of the total number of dogs, 83% were dewormed with 8 commercial products, 62% consume commercial food, 65% directly from the ground and come into contact with other animals, 100% come into contact with humans, 52% are free in the yard, and cleanliness in the living environment is not done at 25%.

Keywords: dogs, *Toxocara* spp., flotation method, prevalence, risk factors.

CHARACTERISATION OF THE ANTIMICROBIAL BEHAVIOUR OF SOME BACTERIAL STRAINS ISOLATED FROM DOGS WITH CHRONIC OTITIS

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Summary

Canine chronic otitis is a pathological recurrent or persistent condition characterised by inflammation of one or both ears resulting from long-term action of the primary, predisposing or perpetuating factors. Numerous bacterial species act as perpetuating factors, some of them such as *E. coli*, *S. aureus* or *P. aeruginosa*, being able to form a biofilm, so the therapeutic results depend on the possibility of destroying this biofilm. Moreover, some isolated strains involved in the aetiology of chronic otitis in dogs seem to be multidrug-resistant bacteria. The study was carried out on 16 dogs with chronic otitis, the bacterial aetiology being highlighted only in 12 cases from those taken into the study. The bacterial isolates were classified into species and genera by the API system (API 20NE, API 20E and API Staph), so it was identified *E. coli* (three isolates), *P. vulgaris* (two isolates), *S. aureus* (two isolates) and *P. aeruginosa* (five isolates) strains. The Kirby Bauer disc-diffusion method was used to test the antimicrobial efficacy of the isolates. All isolates showed resistance to 6 antimicrobials: amoxicillin/clavulanic acid, kanamycin, ampicillin, ceftiofur, gentamicin and oxacillin. The only effective antimicrobial substance against all *P. aeruginosa* strains was imipenem. All *E. coli* and *P. vulgaris* isolates were susceptible to ciprofloxacin and flumequine, antibiotics with evident efficacy against both *S. aureus* isolates. However, the strains of *S. aureus* were also sensitive to imipenem and cefalexin.

Keywords: canine chronic otitis, ears infection.

MANUKA HONEY - AN ALTERNATIVE TO ANTIBIOTICS FOR THE TREATMENT OF INFECTIONS CAUSED BY PYOGENIC BACTERIA

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Summary

Pyogenic infections are one of the most common clinical entities observed in humans and animals, caused by bacteria such as *Staphylococcus aureus*, *Streptococcus pyogenes*, *Proteus* spp., *E. coli*, *Klebsiella* spp., *Pseudomonas* spp., *Acinetobacter* spp., *C. perfringens* and *Bacteroides*. Prompt and aggressive antimicrobial therapy is required to reduce the complications associated with these infections. However, some of the pyogenic bacteria, especially *S. aureus* and *P. aeruginosa* strains, are included in the global priority list of antibiotic-resistant bacteria from WHO/OMS, and the reason for finding alternative treatments, especially in localized infections, is required. The present study aimed to highlight the antimicrobial activity of manuka honey against *S. aureus* (11 isolates) and *P. aeruginosa* (18 isolates) strains. The strains were isolated from dogs' otic secretions and purulent skin lesions and confirmed using the API 20NE and API Staph systems. The antimicrobial activity of manuka honey, MGO 500, was determined by the microdilution method at concentrations of 10%, 15%, 20% and 25% and the results were expressed in OD (optical density). The obtained results demonstrated that the lowest concentration of manuka honey taken into the study presented antimicrobial efficacy against all isolates of *S. aureus*, but not against *P. aeruginosa*. The MIC (minimum inhibitory concentration) value of manuka honey against all 18 *P. aeruginosa* strains was 20%. Even if the MIC value is different, lower for *S. aureus* than for *P. aeruginosa*, manuka honey can represent an alternative treatment method in infections produced by these two bacterial species.

Keywords: manuka honey, pyogenic bacteria, treatment.

CONGLUTINATING BOVINE SERUM AS A LIMITING FACTOR IN SEROLOGICAL REACTIONS

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Summary

Saiduldin Test use conglutinating bovine serum, which contains complement and conglutinin, as a limiting factor. This test was used by us to detect anti-brucellosis antibodies in the blood serum of camels. Comparative studies with conventional serological tests have shown a high sensitivity of ST in the diagnosis of brucellosis in camels.

Keywords: Saiduldin test, conglutinating serum, antibodies, brucellosis, camel.

CONTROL STRATEGY FOR SUBCLINICAL MASTITIS IN DAIRY COWS ON FARMS IN THE PORO REGION (CÔTE D'IVOIRE) IN 2022

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Summary

Subclinical mastitis represents the presence of infection of the mammary glands without visible signs of local inflammation or systemic involvement. The results of the analysis, concerning subclinical mastitis in dairy cows, after having investigated 45 farms in the Poro region out of a total of 360. The data were collected in four departments of the Poro region (Côte d'Ivoire) between May and August 2022. The samples consisted of fresh milk from the 4 quarters of the 288 cows with subclinical mastitis. Using the CMT test (California Mastitis Test), cases of mastitis have been observed in the four departments of the Poro region: Korhogo, Sinématiali, Dikodougou, and M'bengué. The MIRAH (Ministry of Animal and Fishery Resources of Korhogo) was informed and milk samples were taken from each farm and transported to the LANADA laboratory for confirmation of infection. The infection was confirmed by laboratory examinations, showing the major species (*Staphylococcus lentus*, *Staphylococcus xylosus*, *Staphylococcus aureus*, and *E. coli*) implicated in the etiology of mastitis in the region, and was associated with an increase in somatic cells in the milk of each quarter of dairy cows affected. Until the end of the survey on 288 dairy cows, in the Poro region, the results were: 80% had a score greater than or equal to 2, and the remaining 20% had a score greater than or equal to 1. For lactation months, the study showed that there is an influence on the occurrence of disease after the CMT test in young cows of 76.39% positive cases and then increases to 100% for older cows. After establishing the diagnosis, subclinical mastitis control measures were taken, and farmers were advised to separate infected cows (288) from healthy cows and to treat them at the dry-off. Cows with a score greater than or equal to 4 (90 dairy cows) were treated with antibiotics daily until the infection was eradicated. From May 5, 2022, to August 2022, subclinical mastitis was detected on dairy farms in the Poro region. Farmers have been informed of the need to apply hygiene measures and quarantine infected cows to control mastitis. For all cows with a score of 4 (90 dairy cows), the measure is considered antibiotic treatment.

Keywords: subclinical mastitis, dairy cows, pathogens, Ivory Coast.

PARACLINICAL CHANGES OCCURRING IN FELINE HYPERTHYROIDISM

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Summary

Feline hyperthyroidism is an endocrine disease caused by hypersecretion of thyroid hormones, being the most common endocrinopathy found in cats. With its onset, a series of associated paraclinical alterations appear. The aim of the study was to assess the diagnostic value of the hematological and biochemical changes in feline hyperthyroidism. The study was performed on 15 cats diagnosed with hyperthyroidism, which attended the Internal Medicine Clinic of the Faculty of Veterinary Medicine in Timisoara. For this study, the results of blood tests from the time of diagnosis of hyperthyroidism were analyzed. The complete blood count was determined by flow cytometry and the blood biochemical parameters, respectively aspartate aminotransferase (AST/GOT), alanine aminotransferase (ALT/GPT), alkaline phosphatase (ALP), gamma-glutamyl transferase (GGT), urea, creatinine, albumin and total proteins, were determined from the blood serum by usual methods. The biochemical profile revealed a higher magnitude increase in mean ALT and ALP values, at 93% and respectively 80% of the cases studied. Serum AST and GGT activity showed small magnitude increases in only 73% and respectively 20% of cats diagnosed with hyperthyroidism. The complete blood count showed no clinically significant changes in the cats in this study. The magnitude of thyroid hormone elevation correlated positively and significantly with serum ALP and ALT activity. Hyperthyroidism should be considered in any older cat that exhibits polyphagia, weight loss and increased serum ALT and ALP activity.

Keywords: cat, hyperthyroidism, biochemical parameters.

EPIZOOTOLOGICAL SITUATION IN KAZAKHSTAN WITH REGARD TO ANIMAL LISTERIOSIS

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Summary

Analysis of statistical data of the veterinary reporting of the Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan for 2012-2021 shows the presence of listeriosis outbreaks in the territory of the country. During these years listeriosis was detected in Akmola, Almaty, Atyrau, Aktobe, Karaganda, Mangistau, and Turkestan regions. The most unfavorable regions for listeriosis incidence are Karaganda, Akmola, Aktobe, and Turkestan regions. In the Karaganda region, bovine listeriosis was registered annually from 2018 to 2021 in the Ulytau district, as well as in farms near Zhezkazgan city. In Akmola oblast, Bersuat rural district, Zhana Bereke LLP from April to May 2020, 7 cases were registered among sheep. According to veterinary department statistics in Aktobe oblast from 2012 to 2021, the disease in cattle and sheep was registered in Alginsk and Murgalzhinsk districts. In the Mangistau region by ELISA 3.3% of sheep, serum was positive; in the Aktobe region 2.8% of cattle and 2.9% of sheep samples were positive; in the Almaty region 4.4% of cattle serum and 2.1% of sheep tested positive; in Akmola region, 3.09% of cattle and 0.5% of sheep tested positive by ELISA. In the Karaganda region, 13.5% of cattle and 15% of sheep serum had antibodies to listeriosis at diagnostic titer; in the Zhambyl region, 8% of cattle and 8.3% of sheep were seropositive to listeriosis.

Keywords: listeriosis, cattle, epizootic process, antibodies, antigen.

STUDY ON THE PREVALENCE AND LARVAL BURDEN OF THE NEMATODE *TRICHINELLA SPP.* IN JACKALS FROM HUNTING GROUNDS IN TIMIS COUNTY (ROMANIA)

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Summary

Nematodes of *Trichinella* genus are cosmopolitan zoonotic parasites and are among the most widespread parasites of domestic and wild omnivores and predatory animals. The risk of infection with *Trichinella spp.* is a major concern in Romania due to eating habits. This disease is and remains one of the most important parasitic zoonoses, transmitted through the consumption of raw meat from domestic and wild animals. In the context that the jackals represent a sentinel of the intersection of the two domestic and sylvatic cycles, we followed this study to evaluate the prevalence and the larval distribution of *Trichinella spp.* in the muscle samples collected from jackals from Timis County (Romania) hunting grounds. The study was carried out during 2019-2021. The muscle samples from 42 jackals were examined by trichinelloscopy and artificial digestion. The results revealed a 78.57% prevalence of trichinellosis. The levels of larval distribution showed the high larval burden in the tongue muscles (37.8 larvae/gram), diaphragm (21.3 larvae/gram), intercostal (11.2 larvae/gram) and the lowest percentage was in the temporal muscle (3.25 larvae/gram). We can conclude that the high prevalence of trichinellosis in a sentinel host such as the jackal had a predominant and similar larval distribution to the one identified in domestic animals. The results of the present study warn about the risk of infestation with a possible zoonotic parasite identified in a host involved in the wild and domestic relationship with trichinellosis.

Keywords: jackal, trichinellosis, prevalence, larval distribution, Romania.

**CANINE PARVOVIRUS - EVALUATION OF ANTIBODY TITER
AND VIRAL ANTIGENIC TITER BY QUANTITATIVE
IMMUNOFLUORESCENCE ASSAY**

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Summary

Canine parvoviral enteritis is a severe disease and is one of the most common causes of morbidity and mortality in young dogs worldwide. Even though the disease has been known for a long time, and recently modern and diverse methods of treatment and specific prophylaxis have appeared, aimed at reducing the prevalence of the disease, the virus continues to be widely present in nature, and the morbidity and mortality of animals infected with CPV-2 remain elevated. The aim of the research was to evaluate by quantitative immunofluorescence, in canine parvovirus, the titer of antiparvovirus antibodies (post-vaccinal or post-infectious), as well as the titer of parvoviral antigens in the feces of puppies with suspected disease. To carry out the present research, samples collected from antiparvoviral vaccinated dogs, from non-parvoviral vaccinated dogs, and also from dogs with clinical signs of parvoviruses were used. Samples collected from dogs were processed by quantitative immunofluorescence to detect antibody titer and viral antigen titer. The kit Dawnsail is of real use to practitioners, considering the speed of obtaining the response, its quantitative assessment, as well as the fact that it provides a real insight into the degree of antiparvoviral protection and the viral titer in the feces.

Keywords: canine parvovirus, immunofluorescence assay, antibody, parvovirus.

POSTVACCINAL IMMUNE RESPONSE IN CANINE PARVOVIROSIS

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Summary

Canine parvovirus, despite extensive vaccination, remains an important cause of mortality in dogs, especially in puppies. There is an extremely large variation in the response of organisms to antiparvoviral immunization and also there is an extremely wide variation in the response of organisms to infection. The aim of this research was to evaluate the post-vaccination immune response in puppies vaccinated with two vaccines from different companies. Following this study, it can be stated with certainty that in establishing the scheme of vaccination of puppies against parvovirus mainly, but also against the other infectious diseases that benefit from immunoprophylaxis, it must be taken into account that several factors can influence the effectiveness of vaccination. That is why vaccination can be considered a "personalized" action in which a series of individual factors are involved: age, sex, breed, the living environment of the puppy, as well as the infectious pressure in the respective geographical area. However, we cannot recommend a standard canine parvovirus vaccination schedule that covers all existing situations. To establish an optimal vaccination schedule, we consider it necessary to determine the level of maternal antibodies, before establishing the canine parvovirus immunization protocol, considering that maternal antibodies interfered with the post-vaccination immune response, this fact being obviously in puppies vaccinated with B schedule.

Keywords: parvovirus vaccine, immunization, canine parvovirus.

COMPUTED TOMOGRAPHY IMAGING IN CANINE RIB NEOPLASIA: A TWO CASE STUDY

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Summary

Radiology is used as a means of diagnosing both intrathoracic, as well as systemic conditions, although the thorax is one of the most challenging areas to evaluate radiographically, due to several reasons (e.g. positioning, superimposition). Computed tomography has the advantage of not dealing with superimposition, and is paramount to surgical planning for masses located on thoracic walls (e.g. rib neoplasia) especially when radiology failed to properly determine the masses' boundaries. Osteosarcoma and chondrosarcoma are the most frequently seen tumors affecting the ribs, although primary rib neoplasia is rarely seen in dogs. The current study presents 2 cases – an 11-month-old Doberman Pinscher presented with dyspnea and anorexia, and a 10-year-old shepherd-mix female dog, presented with clinical signs suggestive of spinal cord compression; both patients also had a common clinical sign: a firm, broad-based mass, fixed to the distal end of different ribs. Native and post-contrast CT scans were conducted on both patients, whilst the Doberman Pinscher also benefited from a 4-view radiographic study. Clinical signs, as well as radiographic and CT findings for these two dogs, are presented in the present study.

Keywords: computed tomography, canine, rib, neoplasia.

**EFFECTIVENESS OF RABIES IMMUNOPROPHYLAXIS IN
WILDLIFE BY APPLYING VACCINES FROM AIRPLANE**

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Summary

The study aimed to analyze the epidemiological situation regarding rabies in the Republic of Moldova from 2010 to 2022. The obtained results showed that in the Republic of Moldova rabies evolves endemic, and the annual number of rabies cases in animals has dragging variations with value reaching incidences from 58 cases (2011) to 167 cases (2015), is characterized by successive waves of increasing the number of sick animals with a periodicity of 2 to 3 years. The presented data also showed a correlation between the increase in the number of rabies cases in domestic animals in accordance with the number of cases of rabies in wildlife (in foxes). The highest share of rabies in animals was recorded in foxes; these animals are considered the main factor in the spread of the disease. At the same time, the wildlife vaccination program (2020-2022) through the administration of baits from the plane, has contributed to reducing the number of rabies cases considerably in wildlife and domestically animals and the immunological efficiency of the vaccinated foxes was the presence of antibody titers in more than 50% of the shouted exanimated foxes.

Keywords: rabies, Moldova, fox, Lisvulpen vaccine.

THE ROLES OF THE DIGESTIVE MICROBIOTA IN PETS

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Summary

The microbiota is composed of over 500 species of bacteria, viruses, fungi, and protozoa. The last few years have shown that there is a great interest in studying the microbiota among veterinarians as well. In this article we'll review a series of recent research and discoveries regarding the digestive microbiota and its roles in the various functions of the body such as metabolism, protection against pathogens, education of the immune response, synthesis, and or facilitation of the synthesis of key nutrients in the maintenance of physical health, in the development of obesity, in dermatology, the microbiome is a "metabolic organ" with an essential role in maintaining health and preventing or treating diseases in humans but also in pets. By maintaining the health of the body's basic functions, the microbiome can directly or indirectly influence most of the host's physiological functions and multiple organs.

Keywords: microbiome, dysbiosis, digestive health, fiber.

RETROSPECTIVE STUDY OF EXOCRINE PANCREATIC INSUFFICIENCY IN DOGS

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Summary

Exocrine pancreatic insufficiency (EPI) is a functional disturbance resulting from a lack of pancreatic enzymes. This condition occurs less frequently compared to pancreatitis and is mainly caused by atrophy of pancreatic acinar cells, followed by the malabsorption-maldigestion syndrome. Because of the high secretory capacity of the pancreas, signs of maldigestion are not seen until 90% of its secretory capacity is lost. The aim of the present study was to highlight clinical signs and laboratory findings that would assist in the early identification of EPI. The study consisted of an analysis of the medical records from 11 dogs diagnosed with EPI at the University Veterinary Clinics (CVU) from the Faculty of Veterinary Medicine, Timisoara. The diagnosis of this condition was based on history, clinical signs, and laboratory findings. Biochemical parameters, complete blood count, and urinalysis were performed for each patient by standard method. The highest prevalence was found in German Shepherds at ages between 1-4 years old. The majority of dogs diagnosed with EPI showed progressive weight loss and chronic diarrhea. The results of biochemical parameters values showed increased serum activity of alanine aminotransferase (ALT), aspartate aminotransferase (AST), gamma-glutamyl transferase (GGT), alkaline phosphatase, and decreased serum albumin concentration. The correlation between clinical signs and changes in serum biochemical parameters allows only the suspicion of exocrine pancreatic insufficiency, and for the confirmation of the diagnosis, it is necessary to measure Trypsin-like immunoreactivity (TLI).

Keywords: exocrine pancreatic insufficiency, German Shepherd, biochemical parameters.

THERMOGRAPHIC DIAGNOSIS OF THE INTERVERTEBRAL DISC DISEASE IN DOG: CASE REPORT

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Summary

Intervertebral disc disease (IVDD) represents a pathology that affects both people and animals. In dogs, the disease is painful and evolves clinically with pain, loss of motor reflexes, tetraplegia, or paraplegia of the hindlimbs. The gold standard diagnostic methods are represented by Magnetic Resonance Imaging (MRI) and Computed Tomography (CT scan). In particular situations, is required to inject a contrast solution Ultravist 370 (370 mg/ml) Bayer in the subarachnoidian space, a procedure which involves risks to the spinal cord. Both of these diagnosis methods demand sedation, and exposure of the dogs to radiation and are time-consuming and costly. Thermography is an imaging diagnostic method that highlights an area with inflammation and will save money, and time and reduce the risk of spinal cord injury and radiation exposure. This case report used the FlirE50 to scan the thoracolumbar region in a patient diagnosed with IVDD after radiography and CT scan with contrast solution. The site of inflammation identified after thermographic evaluation of the thoracolumbar area corresponds to the same space as IVDD. Thermography can be used as a complementary method to diagnose IVDD in dogs based on the inflammatory reaction which resulted after disc trauma.

Keywords: dog, intervertebral disc disease, thermography.