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Oral Presentations

Oral Presentations

Posters

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Oral Presentation

The domestic worker standing between the large carnivore and us

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Abstract

The first domesticated animal, the dog assisted humans in hunting, defending territory, searching and herding. The dog is the only species selected for its behavior and cooperation, while other domesticated species have been domesticated mostly for characteristics such as meat, eggs, or fur. Dogs were the first domesticated animals because of their social nature and their ancestral ability to change their behavior significantly in response to human behavior. Wolves, considered to be the ancestors of dogs, are ecologically and morphologically flexible animals. They live in packs of closely-knit individuals. Living and hunting in a pack requires coordinated tracking, predicting the movements of the prey and the other wolf, and cooperation. Being in such a social group and specializing in cooperative hunting, enabled the development of the social cognitive skills of wolves. These skills and observational abilities of wolves have recently been demonstrated by their performance in experimental manipulative problem-solving tasks. It is assumed that the domestication process not only changed dog morphology, but also changed and improved the way dogs process information. It is thought that dogs are able to perceive their environment and use this information to make decisions. Recent studies of dogs social learning styles and observational abilities show that domestication and selection have enhanced social communication and cooperation between humans and dogs. Livestock guarding dogs have been used for thousands of years in Europe and Asia to protect livestock from attacks of predators and wild stray dogs, or from harm such as theft that may be caused by humans. Its origins extend from the Tibetan plateau to Mesopotamia in the prehistoric period. They have a rich tradition known to date back at least 5000 years in European and Eurasian history. The use of livestock guarding dogs is still an important part of animal husbandry in these regions. In the late 1970s, they were exported from the old world to the new world USA and were widely adopted by traditional domestic sheep producers. The first guarding dogs are thought to have been simply bred and bonded to livestock, and expressed task-appropriate behavior. Over the centuries that followed, humans selected the best working dogs for breeding and passed down the appropriate morphological and behavioral features through the generations. Dogs that showed unwanted behaviors such as attacking and chasing farm animals were removed from the livestock guarding duty and were not allowed to breed, therefore undesirable features in the gene pool were reduced. Livestock guarding dogs have been described as "highly intelligent and independent, devoted to family members and wary of strangers, calm and stable but frightening and quick to react to perceived threats.

Keywords: dog, domestication, livestock guarding dogs, wild life protection

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Oral Presentation

A new task for working dogs: Nature conservation studies

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Abstract

Today, dogs are seen as pets, domestic dogs and best friends of humans. However, they are increasingly being used for other purposes as well. Therefore, it is possible to differentiate between domestic dogs and working dogs. When it comes to working dogs, the first category that comes to mind are police dogs (narcotics, bomb disposal), search and rescue dogs and guide dogs. In addition, sports dogs can also be included in this group (agility, obedience and protection, dog sports with trainers). In addition to all these tasks, dogs are being used more and more in nature conservation studies. In this way, dogs can also help living things other than human beings. In some studies in the field of nature conservation, dogs are used to protect the ecosystem and endangered species. For example, Kangal dogs, which have been used as shepherd dogs in our country for years, are involved in the cheetah protection projects in Namibia. Another area where dogs are used in nature protection is Jack Russel dogs working in areas with high snake and mouse populations, just as cats were taken into homes during the medieval plague period. Breed selection is made in line with the tasks expected from the dogs, taking into account the breed characteristics. The dogs' ability to search for humans, both dead and alive, in earthquake zones and debris fields within the scope of search and rescue efforts is also useful in locating endangered animals and rare plants. Moreover, dogs can detect and identify specific species in animal feces. Thanks to the dogs working in the nature conservation area, in addition to rare plants, invasive plants can also be detected. Dogs can also participate in nature conservation activities in the areas of illegal animal trade and illegal hunting, similar to their common police or military dog duties.

Keywords: dog, working dogs, nature conservation

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Oral presentation

Normative data obtained in testing the sense of hearing in kangal shepherd dogs

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Abstract

Sense of hearing is of crucial importance for dogs to perform their duties.There is no study to determine the reference latency intervals of dogs' sense of hearing. The aim of this study is to identify normative data that can be used as the reference interval for the wave latencies I,III and V at 80 dB with respect to the sense of hearing of Kangal shepherd dogs. The BAER test was applied to 106 Kangal shepherd dogs in Sivas province. The animals have been grouped by age, sex and general. Normative data were identified for the reference latency intervals for each wave of the right and left ears of the groups and statistical differences between the wave latency intervals were also examined. One-Way ANOVA and post-hoc Duncan test were used in the age group comparison and independent samples t-test was used in the comparison of the other groups. All statistical analyses were performed using the SPSS v.22 software.When the groups are compared, only statistically significant difference was found in the age group at the wave latency V at 80 dB HL. No statistically significance was found in all other groups.The average values of the wave latencies I,III and V were found to be 1.37-2.36-3.65 ms, 1.37-2.35-3.63 ms, 1.38-2.36-3.68 ms, 1.35-2.37-3.79 ms, 1.30-2.26-3.57 ms and 1.41-2.39-3.59, general, female, male, 20day–9month, 10–30month and 31months and older, respectively. Since normative data on the sense of hearing of Kangal shepherd dogs have been identified for the first time with this study, it is expected to make a significant contribution to the literature. This normative data can be used as reference interval in clinical examinations and future studies on the sense of hearing of Kangal shepherd dogs.

Keywords: baer, kangal shepherd dog, normative data, turkey, wave latency

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Oral presentation

Maternal canibalism in all aspects

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Abstract

In the present study, information is given about the diagnosis, treatment and prevalence of maternal cannibalism. In Sivas province, blood serum parameters, behavioral parameters and oxytocin hormone levels were compared of 15 clinically healthy female dogs with maternal cannibalism and 15 female dogs without maternal cannibalism. As a result of the data obtained, the cause was found of maternal canibalism. Treatment protocol has been developed. Afterbirth carbetosin administration was applied to 19 clinically healthy female dogs that was exhibiting maternal canibalism in Sivas province. Following the carbetosine administration, the mother's behavioral patterns towards the offspring, and the mother's electrocardiography data were examined. Every stage of the study, the dogs were not removed from their current habitat, and they were allowed to continue their usual routines. After the treatment protocol was developed, those who communicated with us via social media, e-mail and telephone with the complaint of maternal cannibalism by dog breeders and animal owners were recorded and the prevalence of the disease was determined. In the study, especially the serum oxytocin value was below the normal reference ranges in dogs with maternal canibalism. Dogs with maternal cannibalism in behavioral analyzes was display a more stressful and insecure body language. In the treatment, determined that the maternal canibalism behavior was not observed in Kangal shepherd dogs where carbetosin was applied, and that the dose of carbetosin application had no negative effect on heart parameters in mother dogs. When the communication records were examined, the prevalence was determined as 73 patients from different breeds in 11 months. Part of this work has been published previously.

Keywords: maternal cannibalism, kangal shepherd dog, oxytocin, prevalence

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Oral Presentation

Methods of differential diagnosis of vestibular syndromes

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Abstract

The vestibular system, according to the position of the head, changes the position of the eyes, trunk and extremities and is responsible for balance. The receptors of this system maintain the normal balance of the living being against both motion and gravitational gravity. Motor fibers from the vestibular nuclei project to all levels of the spinal cord through synapses in the vestibulospinal tracts and interneurons in the ventral gray matter. Vestibular syndromes are characterized by ataxia, tilt of the head, turning around, nystagmus and falling to the side of the lesion .It consists of two parts: peripheral (middle and inner ear) and central (brain stem and cerebellum).The detection of neurological diseases originating from the vestibular system is distinguished by neurological examination and some diagnostic methods according to whether the disease is central or peripheral.In this review presentation, it is aimed to present new and current developments about the adequacy and evaluation of the techniques used to distinguish between central and peripheral vestibular syndrome and their importance in neurology.

Keywords: differential diagnosis, neurology, vestibular syndromes.

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Oral Presentation

Intraventricular pneumocephalia after sinonasal tumor surgery in a dog: a case report

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Abstract

Pneumoencephalia is a rare disorder in veterinary medicine and defined as the presence of air between or in any brain compartments (like ventricular, paranchimal, subarachnoid, subdural). Its most often causes are cranial trauma or surgeries like rhinotomy or craniotomy. In humans it is mostly shows no symptoms, doesn't requires any intervention and resolves spontaneously after two to five days. Altough in some cases it can cause symptoms like epileptic seizures, loss of consciousness, nausea, vomiting, dizziness and paralysis. This is called "tension pneumoencephalia".In this case, 8 year old dog was referred because of sneezing, reverse sneezing and sanguineus discharge from both nostrils and right eye. After the initial evaluation, a mass in the nasal cavity was identified by Computed Tomography and dorsal rhinotomy was performed for its complete removal. The biopsy material was sent for histopathological examination and the result was Adenocarcinoma. In follow up after ten days from surgery the patient shows no abnormalities and radiation therapy was suggested as the therapy of choice for Adenocarcinoma. After five days from follow-up, the patient referred again to our clinic because of neurological symptoms like imbalance, vomiting, anorexia, spinning around on its own axis and agression towards the owner. After the examination, cranium CT and Magnetic Resonance Imaging shows pneumoencephalia in lateral ventriculi, lysis of cribriform plate lysis and herniation of the bulbus olfactorius in the right side. The neurological symptoms of this case was resolved completely after three days of medical treatment towards intracranial pressure, oedema and possible seizure activity. After four months post-op follow up examination also shows no abnormalities in this case's patient. As result, patients needs to be monitorized after sinonasal tumor surgery for possible neurological symptoms and pneumocephalia. If the pneumocephalia exists but it doesn't cause any neurological symptoms, it can be treated conservatively without surgery.

Keywords: pneumoencephalia, pneumocephalia, rhinotomy, nasal tumor, dog.

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Oral presentation

The importance of membrane nictitans flap technique in the treatment of corneal pathologies in cats and dogs and its contribution to the welfare of patients

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Abstract

The membrana nictitans, also called the third eyelid, is a thin tissue located in the medial canthus of most pets. Its main task is to distribute the precorneal tear components over the cornea and to draw the resulting waste products and the remaining tear film into the tear duct puncta. Membrane nictitans also contributes significantly to normal tear production. Membrane nictitans flap is a method used in the treatment of various corneal diseases and in the protection of post-operative corneal grafts. It is easy to apply, the operation time is short, it requires less surgical experience, it is a safe and economical method. This method is mostly used in the treatment of pathologies such as simple corneal ulcers, chronic epithelial defects, and lacerations of the cornea, which are common in small animal practice, to protect and support the weakened cornea and to aid corneal healing. It can be used as a 'tamponade or pressure bandage' in acute corneal hydrops, as well as to protect the corneal surface from traumas and eyelid frictions with the application of tarsorrhaphy. In this study, it is aimed to shed light on those who wonder about the benefits of membrana nictitans flap in the treatment of corneal pathologies encountered in cats and dogs, its effectiveness on recovery time and complications related to the technique, to share the treatment results and to transfer them to professional practice and to inform our colleagues about this technique.

Keywords: flap, cornea, membrane nictitans, treatment, technique

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Oral Presentation

Evaluation of preanesthetic thorax x-rays in cats and dogs for which planned elective ear nose and throat surgery

Eylem Bektaş Bilgic, Ceren Nur Giray, Alper Demirutku

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Abstract

The clinical examinations that the physician should perform before the application of anesthesia are defined as preanesthetic evaluation. It is performed to determine the risk of anesthesia as a result of physical examination, laboratory tests and necessary consultations. It allows for the patient to be operated under optimum conditions as well as preventing the peroperative and postoperative complications that may occur. Although anesthetic drugs show their primary effects on the central nervous system, their secondary effects are seen on the respiratory and cardiovascular systems. It is very important to determine the diseases accompanying the patient's current condition by evaluating the respiratory system and cardiovascular system in the preanesthetic period. Thoracic radiography is a noninvasive auxiliary examination and diagnostic method that is frequently used in the preanesthetic period. It provides evaluation of extrathoracic structures, mediastinum, pleural cavity and pulmonary parenchyma. The material of this study consists of cats and dogs which came to Istanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, Department of Surgery, Otorhinolaryngology Clinic and planned for elective surgery. Following anamnesis, physical examination, and laboratory investigations, thoracic X-Rays were taken from each patient in bilateral laterolateral (LL) and dorsoventral (DV) or ventrodorsal (VD) positions. By evaluating the results, in doubtful cases; additional tests such as positive contrast radiography, computed tomography, advanced cardiological examination were applied. As a result, in the light of the preanesthetic evaluation findings, the risk of anesthesia was determined and an anesthetic management suitable for the operation to be performed was planned.

Keywords: cat, dog, preanesthetic evaluation, thorasic x-ray, anesthetic management

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Oral presentation

Minimal invasive plate osteosynthesis in veterinary orthopaedics

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Abstract

The current increase in the numbers of fracture treatment by plate osteosynthesis in veterinary medicine is leading to the production of specific plates for different types of fractures. Recent studies about fracture healing show that MIPO procedure is superior for faster union and healing by decreased contamination risk, faster return of function, lower complication rates and blood supply preservation. By now, indirect reduction technics are more valuable in preservation of the biological structure of bone than full anatomic reduction techniques. Day by day, MIPO becomes more popular in veterinary orthopedics. Basicly the method is applying a plate without opening the fractured area to make a bridging between the proximal and distal metaphysis/diaphysis of the fragments. The success of the procedure relies on the type of the fracture and the fracture area. The procedure can be applied especially diaphyseal segmental fractures with success but to be avoided in articular fractures. The procedure has been being used usually in the diaphyseal tibial and radial fractures of the cats and dogs. But nowadays it has started to be used in femoral and humeral fractures as well.The disadvantages of the procedure is the difficulty of the application and the need of the intraoperative radiography or fluoroscopy for the correct positioning of the fractures.

Keywords: mio, mipo, plate osteosynthesis, fracture, reduction

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Oral Presentation

Evaluation of the treatment efficacy of flexible-hobble bandage in cats with swimmers syndrome

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Abstract

Objective: In this study, we wanted to emphasize that the swimmers syndrome, which is rarely seen in cats, is frequently encountered and can be treated with an easily applied flexible-hobble bandage without reducing patients quality of life. **Introduction:** Swimmers syndrome is a rare developmental disease seen in neonatal dogs and cats, physiologically delays walking, causes hyperflexion of the coxofemoral joint, especially in the hind legs, and hyperextension of the tibial-patellofemoral and tibiotarsal joints. It's rarely formed in the front legs and is characterized by swimming-like movement. The diagnosis is made based on the anamnesis and clinical findings. **Material and methods:** The cases were admitted to Istanbul University-Cerrahpasa Veterinary Faculty Surgery Department Clinics in 2019-2022, and are unable to get up from the ground, spreading their legs sideways. Cases aged between 20 days-4 months, breeds are Scottish Fold, Persian, British Shorthair, and British Shorthair crossbreed, consisting of 9 cats. According to clinical examination findings, diagnosis of swimmers syndrome was made and radiographically evaluated in terms of hip dysplasia and chest flattening/pectus excavatum. A self-adhesive elastic Coban bandage (Petflex, Kruuse, Denmark) and a flexible fixation band (Hypafix, BSN medical, Germany) were applied to the patients lower hobble bandage from the distal tibia, taking into account the hip-width. Since the external rotation from the metatarsals was advanced in Case 6, a hobble bandage was applied over the metatarsal region in addition. **Results:** Complete recovery was observed in an average of 16 days. Case 1 discontinued the treatment and had permanent moderate abduction and external rotation. Cases 4 and 7 didn't continue treatment. Case 8 didn't accept the treatment. The treatment of Case 9 is still ongoing. Successful results were obtained with the application of flexible-hobble bandages in all patients. **Conclusion:** Contrary to what has been reported, it is understood from our study that syndrome can be seen in kittens quite frequently and encountered especially in Scottish Fold breeds. Early diagnosis, reduces the duration of the treatment and is important for prognosis. The treatment is successful with the flexible-hobble bandage method.

Keywords: kitten, musculoskeletal system disease, splayed legs

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Oral Presentation

Stabilization of carpal and tarsal joint instability in cats and dogs using butterfly-shaped external fixation

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Abstract

Purpose: With this study, it is aimed to contribute to the literature by sharing the joint stabilization provided by the closed approach external fixation method and the successful results of this in carpal and tarsal joint injuries, which are frequently seen in cats and dogs. **Introduction:** Carpal-tarsal joint injuries in cats and dogs mostly occur as a result of damage such as jumping/falling from a height, direct trauma, and traffic accidents. Proximal intertarsal and tarsometatarsal luxations occur as a result of damage to the plantar and collateral ligaments in the tarsal joint. In the carpal joint, instability is seen due to palmar ligament and intra-articular fractures or dislocations. In addition, joint damage may occur as a result of intra-articular fractures and metacarpal/metatarsal fractures. Diagnosis is based on palpation of joint laxity and stress radiography. Treatment is conservative or operative. Splint bandage application is used in conservative treatment. Arthrodesis or internal immobilization is applied as operative treatment. **Material and Methods:** The cases consisted of 2 dogs and 6 cats, aged 2 to 8 years, brought to Istanbul University Faculty of Veterinary Surgery, Department of Surgery between 2021-2022. The patients applied to the clinic with complaints of non-wight bearing lameness and swelling in the extremities. On clinical examination and radiography, tarsometatarsal luxation in 3 cats and 2 dogs, intercarpal luxation in 2 cats and bilateral antebrahiocarpal luxation in 1 cat were detected. The relevant joint was stabilized using Krischner pins of various thicknesses according to the bone structure of the patients. Afterwards, the pins were bent and formed into a butterfly shape, and then bound with thermoplastic material (vetlite). **Results:** After the controls at the 2nd month in 3 cases and at the 3rd month in 5 cases, joint stabilization was determined. While major complications were not observed in any of the cases, minor complications were detected in 2 cases. **Conclusion:** Successful results have been obtained with the use of butterfly type external as a minimally invasive and economical technique in carpal and tarsal joint traumas.

Keywords: carpal joint, tarsal joint, luxation, instability, external fixation

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Oral Presentation

Comparison of some biomarkers in order to determine the prognosis in cats with abnormal feline pancreas specific lipase levels

Sıla Seyda Cinar, E. Merve Alan, M. Erman Or, Lora Koenhemsi

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Abstract

Although pancreatitis is a common disease in dogs and humans, it is claimed to be less common in cats. According to the prevalence studies conducted in recent years, it has been reported that it is very common in cats. With these reports, its clinical importance and awareness is increasing day by day. In this disease, which is often overlooked during the symptoms and clinical examination; Diagnosis can be made with visual diagnostic methods, routine blood tests and extremely reliable feline pancreas specific lipase (fPL) measurement. However, it is possible to distinguish whether this disease is acute or chronic based on the histopathological examination of the pancreas, with the clinical findings of the patient. In this study, RDW, WBC, MPV, PCT, PLT, WBC/MPV and ALB/GLOB ratios were compared by considering the clinical findings of cats with abnormal fPL results. It was aimed to investigate whether acute or chronic pancreatitis can be differentiated with these comparisons. For this purpose, 41 patient cats and 25 healthy cats, diagnosed with pancreatitis of different breeds, ages and genders, who applied to Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine Small Animal Clinic between 2017 and 2022, were included in the study. Diagnosis of pancreatitis; It was determined by the positive fPl test performed on the cats suspected as a result of any of the anamnesis, clinical examination, ultrasonography and blood tests. The healthy animal group consisted of those who came to our faculty clinics for vaccination, sterilization and general control. As the results of the study, the patients could not be followed up fully, we think that it is important to follow the patients with the changes in these markers in future studies in order to better understand the use of markers.

Keywords: feline, pancreatitis, WBC/MPV ratio

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Oral Presentation

Kirby's rule of twenty

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Abstract

Developing technology has expanded the possibilities of diagnosing diseases and treatment management in the field of veterinary medicine in today's conditions. With the significant progress made in the field of preventive medicine, the survival time of the patients has increased and the expectations regarding the level of patient care have increased. In this direction, it has gained importance to eliminate deficiencies in veterinary emergency and critical care and to optimize patient care quality and standards. It is important for the prognosis that the regular control and follow-up of the patients in need of intensive care is carried out in accordance with the protocol within the framework of certain rules. Kirby's 20 rules are a set of rules created in 2017 by Rebecca Kirby (DVM, DACVIM, DACVECC) for the care of critically ill patients.This list of rules, which we think will improve animal welfare if implemented, will serve as a reminder to the clinical team of the 20 items that should be checked at least once a day in critically ill patients. Thus, it will allow to evaluate the general clinical condition of the patient, to increase the quality of patient care, to set standards for patient care, and to reduce morbidity and mortality.Our aim is to convey this protocol, which was created on veterinary critical care and emergency, to veterinarians and technicians in an explanatory manner.

Keywords: kirby, veterinary critical care, veterinary emergency

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Oral Presentation

Zoonotic importance of *Giardia* spp. infections in asymptomatic dogs

Bengu Bilgic, Alper Bayrakal, Banu Dokuzeylul, Tamer Dodurka, Mehmet Erman Or

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Abstract

Giardia intestinalis (*G. lamblia, G. duodenalis*) is a common protozoan in human and other mammals worldwide causing diarrhea, vomiting, abdominal pain, weight loss and dehydration. The major infection occurs via directly faecal-oral route or indirectly contaminated food and water consumption. Dogs can carry the zoonotic genotypes of *Giardia* without any clinical signs and contaminate the environment. Asymptomatic carrier dogs living in the same environment with humans, food and water contaminated with these dogs' faeces can be a source of infection for humans. The aim of this review is to emphasize the asymptomatic course of *Giardia* spp. infections in dogs and to evaluate the effects of asymptomatic carriage on human health and the environment.

Keywords: giardia, dog, zoonosis, asymptomatic

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Oral Presentation

Pharmacological and clinical approach to plant based complementary health products in lower urinary system diseases in cats and dogs

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Abstract

Medicinal plants, which are widely used in the treatment of many diseases in folk medicine, are alternative treatment approaches that allow to overcome the limitations of modern treatments such as high treatment costs and difficulty in accessing health services. In addition to their traditional uses, the World Health Organization (WHO) also recommends the use of medicinal plants as alternative applications, especially in countries where have limited access to modern medical facilities. Limitations on the methods used in the treatment of lower urinary tract diseases such as urinary tract infection and urolithiasis in both human and veterinary practice (high treatment cost, low tolerability, development of antibacterial resistance, etc.) have brought the use of natural products of herbal origin within the scope of supportive/complementary treatment approaches. Although the mechanism of action of medicinal plants in the treatment of lower urinary tract diseases is not clearly known, studies have shown that they increase the glomerular filtration rate; and they can be complementary alternatives to conventional treatment due to their anti-lithogenic, antibacterial, antioxidant and anti-inflammatory activities. Patients that referred to with one or more of the symptoms of urinary system diseases such as polyuria, pollakiuria, dysuria, stranguria, anuria, hematuria, urinary incontinence constitute the case group of one of the first three systemic diseases most frequently brought to the clinic. Failure to intervene in the diseases shaped in the lower urinary system in a timely manner causes negative consequences such as the disease becoming chronic, the progression of the disease to the upper urinary system in progressive cases, and a decrease in the quality of life. Complementary products used in addition to medical treatment are sometimes used for prophylactic purposes. In this context, many supplements have been prescribed for different diseases in small animal practice in recent years. In this presentation, it is aimed to convey current developments about medicinal plants, which are used effectively within the scope of supportive treatment practices in lower urinary system diseases of cats and dogs, to veterinary clinical practice.

Keywords: lower urinary system diseases, complementary therapy, medicinal plants, cat, dog

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Oral presentation

Are dogs coming to our clinic infected with brucellosis?

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Abstract

In this study, it was aimed to investigate the antibodies of *Brucellosis* in dogs that were individuals bringing to Balikesir University Veterinary Faculty Animal Hospital. Blood samples were taken from dogs (n=90) for evaluating the *Brucella melitensis, abortus,* and *suis* antibody positivity by using the rapid test kits (*Brucella* Ab test kit, Bionote, Inc. Korea). A drop of serum sample and four drops of test solution were dropped into the sample well of the test kits and, then after the 20 minutes, it was decided whether *Brucella* positive or not. According to the tests, all animals were determined as *Brucella* antibody negative. In conclusion, this study demonstrated that dogs do not have *Brucella* antibodies. We suggested that screening for *brucellosis* in dogs should be supported by other diagnostic methods [Enzyme-Linked ImmunoSorbent Assay (ELISA), Rose bengal, Serum Agglutination Test (SAT), Commbs Test], for detecting the *Brucella canis* antibodies.

Keywords*:* brucellosis, antibody, rapid test kit, dog

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Oral Presentation

Determination of *Salmonella* spp. prevalence and antibiotic resistance profiles in domestic animals

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Abstract

Besides being a foodborne zoonotic pathogen, *Salmonella* can be a potential source for humans due to close contact between pets and their owners. This study aimed to prevalence and antimicrobial resistance of *Salmonella* spp. in apparently healthy and diarrheic cats and dogs. In addition, macroscopic appearances of lactic acid bacteria(LAB) isolated from feces of both *Salmonella* positive and *Salmonella* negative dogs were investigated. As a result of the bacteriological examination of rectal swab samples taken from a total of 341 pets, 184 cats and 157 dogs, brought to private clinics, *Salmonella* spp. was positive in 9 (5.73%) healthy-looking dogs, while *Salmonella* spp. was not seen in cats (0.00%). As a result of macroscopic examination of LAB, there was no significant difference between *Salmonella*-positive dogs and negative ones. In addition, there was a relationship between the occurrence of *Salmonella* spp. in dogs and the consumption of raw meat and the living environment. When the antibiotic resistance profiles were examined in 9 isolates, resistance formation was observed against 6 of the 19 antibiotics tested according to their MIC values, while the resistance rates were respectively: CIP (21.05%), SXT, LVX, AM (10.52%), ETP, SXA (5, 26 %). And when 13 antibiotics were analyzed for 9 isolates using the disk diffusion method, resistance was observed against 6 of them and the resistance rates were found as NA (15.38%), TE, DO, C, FFC, S3 (7.69%). Multi Drug Resistance (MDR) was observed in 2 of 9 positive isolates and when a preliminary screen for Extended-Spectrum-B-Lactamase (ESBL) production was performed, ESBL was not detected for any isolate. As a result, dogs were seen as *Salmonella* ssp.carriers, and when *Salmonella* carriers were examined in healthy dogs with diarrhea, *Salmonella* was isolated in healthy dogs. It has been determined that hygiene practices should be observed after contact with dog feces and that dogs should be fed well-cooked foods to reduce the risk of *Salmonella* spp.

Keywords: *Salmonella*, cat, dog, antimicrobial sensitivity, *Lactobacillus*

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Oral Presentation

Evaluation of red cell distribution with in dogs with parvoviral enteritis: a retrospective study

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Abstract

Canine parvoviral enteritis is a contagious viral disease which is very common all over the world and can progress with high mortality and morbidity even when diagnosed at an early stage. Red cell distribution width (RDW) is a parameter which shows the change in volume and size of erythrocytes and also important in the interpreting of conditions such as inflammation and anemia. The aim of this study is to compare the RDW value in healthy animals and animals with parvoviral enteritis and also examine correlation between other hemogram parameters. We included dogs diagnosed with parvoviral enteritis (n=42) and healthy (n=29) ones which were applied to Istanbul University-Cerrahpasa Faculty of Veterinary Medicine, Internal Medicine Department Small Animal Clinic between January'21 to December'21. Parvoviral enteritis was diagnosed by anamnesis, clinical examination and rapid parvavirus test. Healthy animal group was created from the animals which applied our faculty clinic for vaccination, sterilization and general control. RDW was found to have a moderately positive correlation with RBCs and a low negative correlation with MCV. And no difference was observed in the RDW comparison between sick and healthy animals. The differences between %RETIC, RETIC, %NEU, %EOS, EOS were found to be significant in both groups. In conclusion, the RDW value in dogs with parvoviral enteritis is similar to healthy dogs and RDW could not be interpreted as a biomarker of this type of acute inflammatory infection. More studies are needed on the changes of RDW in different diseases in animals and to understand the clinical significance of this value.

Keywords: RDW, parvoviral enteritis, canine

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Oral Presentation

Ventral transarticular stabilization technique applied in atlantoaxial instability: a case report

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Abstract

Atlantoaxial instability/subluxation (AAS/AAS) is a state of hypermobility caused by loss of ligamentous support (especially associated with aplasia, hypoplasia, and dorsal deviation of the dens) of the joint between the atlas and axis. It is most commonly seen in toy breed dogs under 1 year of age due to congenital and developmental reasons. It is seen in dogs of all breeds and ages with traumatic instability. It can cause neck pain, severe neurological dysfunction such as tetraplegia and death due to sudden respiratory arrest. Treatment of AAI/AAS can be conservative and surgical. Conservative treatment is preferred in patients with mild clinical manifestations.Our case is a 3-year-old, 2.5 kg Toy Poodle breed dog, referred to Istanbul University Cerrahpaşa Training and Practice Animal Hospital Surgery Clinic. It had been reported that the dog suddenly stop breathing after jumping from the owners lap, and its breathing was restored with CPR in the nearest clinic. In the clinical examination; tetraplegia, severe neck pain and respiratory distress were detected. After first intervention of the patient, cervical region had been evaluated with LL radiography, Magnetic Resonance Imaging (MRI) and Computed Tomography. Focal hyperintensity had been observed on T2-weighted sequences at this level with slight dorsal angulation of dens. It was considered as posttraumatic edema. For pre-surgical planning, a model output was created by generating 3D-CT reconstruction images of the atlantoaxial region. Standard ventral transarticular stabilization technique was applied to the patient with a threaded Steinman pin after determining the entry points ,diameters, angles and advancement depths on this model. Postoperatively, the position of the pins was checked with CT. On the 4th day after the operation, it was observed that the neck pain disappeared and patient started to move voluntarily, and on the 6th day it started walking. The biggest complication of atlantoaxial instability surgery is, cardiovascular arrest due to medulla oblongata or spinal cord injury because of incorrect implant placement. We think that surgical planning on the 3D model obtained from the CT images of the patient reduces the risk.

Keywords: dog, atlantoaxial instability

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Oral Presentation

Could failure after decompression surgery in extruded disc herniations be caused by fibrocartilaginous embolism?

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Abstract

Intervertebral Disc Extrusion (IVDE) is one of the common causes of neurological dysfunction in dogs. Clinical manifestations occur acutely, ranging from the presence of only pain to paralysis. Mostly the sensation of deep pain is lost. Fibrocartiloginous embolic myelopathy (FCE) refers to acute infarction of the spinal cord. It has been proven that the fibrocartilage material from the nucleus pulposus of the intervertebral disc settles in the vascular system of the spinal cord and causes ischemia. In cases of FCE, MRI showed hyperintensity and edema in T2-weighted sequences of the spinal cord at the level of one intervertebral disc. Decompression surgery is not recommended in FCE cases because of spontaneous healing. Decompression surgery have been performing in extrusive disc hernias which referral to Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine Department of Surgery Clinics, resulting in rapid improvement in neurological functions. However, in cases with increased T2W signal on MRI, starting from the level of disc extrusion, accompanied by epidural bleeding, extending to the spinal cord segments in the anterior or posterior or both directions, clinical findings could not be improved or a very late improvement was observed. We aim to share the clinical conditions and MRI findings of these patients who did not see improvement after decompression surgery. Spinal cord hyperintensity on T2W images has been the most widely investigated parameter . This spinal cord hyperintensity identified on T2W images has been associated with necrosis, myelomalacia, intramedullary hemorrhage, inflammation, and edema. The enlargement of the area of spinal cord hyperintensity is a more reliable prognostic predictor than the absence of deep pain perception. These signal enhancements usually occur in a small area where the annulus ruptures and the nucleus pulposus impinges on the spinal cord. However, we are of the opinion that the increase in T2W signal observed in our cases at the long level did not occur due to impact or compression of the disc, but due to venous infarction caused by FCE, and we believe that it is a condition that significantly affects the success of decompression surgery.

Keywords: dog, mrg, intervertebral disc extrusion, fibrocartilaginous embolism

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Oral Presentation

Medical and operative management of odontoid process (dens) fracture in a cat : a case report

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Abstract

Unlike other cervical vertebrae, the second cervical vertebra(C2) has an important structure called the odontoid process in its body. Due to its strong ligamentous support, it only breaks due to high-energy trauma, osteoporosis or developmental anomalies. Neurological disorders are seen in patients, ranging from non-irritating cervical pain to tetraplegia. The diagnosis of the fracture is made by direct radiography, computed tomography(CT) and magnetic resonance imaging(MRI). Conservative or surgical treatment is applied depending on the type of fracture. The presented case consisted of a 9-month-old, male, 5.5 kg, domestic shorthaired cat brought to Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine, Department of Surgery. The cat had fallen from the 11th floor 6 days ago and had complaints of not being able to use its legs and keeping its head tense. In the neurological examination, it was determined that there was no reception response in all four legs, increased spinal reflexes, almost no voluntary movements, and in addition, the front legs were in extension. Cranial nerve examination was normal. As a result of CT and MRI examination of the cervical region, it was observed that the odontoid process was displaced posteriorly, the fracture line narrowed the spinal canal, and edema developed in the paraspinal muscles. An operation decision was made for decompression and stabilization. To cure edema, 20% mannitol and methylprednisolone were administered intravenously. By entering the atlantoaxial region with a ventral approach, the odontoid fracture fragment was reached with a slight caudal retraction of C2. However, with the development of cardiopulmonary arrest, the operation was terminated and resuscitation was started. After successful CPR application, the patient was awakened and the operation was postponed for one week. A week later, the broken odontoid part was removed with the operation. Since the ligament structures of the joint were intact and stable, stabilization was not considered necessary. The patient started walking without support approximately 1.5 months after the operation.This case report is the first report in the literature which complete recovery was achieved by removing only the fractured fragment without stabilization after an odontoid process fracture.

Keywords: cat, odontoid process fracture, high rise syndrome

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Oral Presentation

Ketamine or propofol anesthesia in dogs: how do they affect cytokines, antioxidants and neutrophil functions?

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Abstract

The objective of the study is to investigate the effects of ketamine and propofol on cytokines, anti- oxidant defense system, and neutrophil functions in dogs. A total of 24 dogs were used. Dogs were divided into two groups as ketamine and propofol. The ketamine group received ketamine (5 mg/kg) intravenously while the propofol group received propofol (4 mg/kg) intravenously.Blood samples were collected before sedation and 30 minutes after induction of anesthesia.Serum antioxidant and cytokine levels were analyzed and neutrophil functions were determined. Respiration rate, serum malondialdehyde, IL-4, IL-6 levels, and phagocytic and chemotaxic activity of neutro- phils were decreased (P=0.001, P=0.010, P=0.014, P=0.039, P=0.008, and P=0.037, respectively), oxygen saturation were increased (P=0.025) in the ketamine group. Serum IL-6 and IFN-γ level were decreased (P=0.015 and P=0.032 respectively), chemotactic activity of neutrophils were increased (P=0.049) in propofol group. The administration of ketamine was found to have a positive effect both on the antioxidant system and the neutrophil. On the other hand, positive and negative effects of propofol on different parts of the immune system were observed. Therefore, the results should be taken into account when designing an anesthesia protocol for dogs to predict possible defense system reac- tions during the postoperative period.

Keywords: dog, anesthesia, cytokine, antioxidant, neutrophil activation

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Oral Presentation

Evaluation of malignant findings in feline oral squamous cell carcinoma

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Abstract

Feline oral squamous cell carcinoma is the most common oral malignancy in cats with aggressive malignancies and the ability to invade adjacent tissues. A grading system for histopathological examination of FOSCCs and the determination of malignancy criteria need to be developed in veterinary oncology. For this purpose, the archive of the Department of Veterinary Pathology, IUC Veterinary Faculty between the years 2010 and 2020 was reviewed. The cases diagnosed with FOSCC were histopathologically re-evaluated and graded according to the Anneroth grading system. The epithelial origin of the neoplasm was confirmed by the immunohistochemical staining technique using a pan-cytokeratin antibody. In order to evaluate malignancy, cyclooxygenase (COX)-2, epidermal growth factor receptor (EGFR), and Ki-67 markers that play a role in carcinogenesis stages were immunohistochemically labeled. As a result of the histopathological evaluation, 14/25 of the cases were determined as Grade 2 and 11/25 as Grade 3. A positive reaction was observed in 96% of the cases in immunostaining with COX-2 antibody, but no difference in expression was observed between Grades 2 and 3. While the positive reaction was observed in 84% of the cases in immunostaining with EGFR antibody, it was noteworthy that the severity of reaction was lower in Grade 3 tumors. The immunopositivity of Ki-67 was observed as strong nuclear staining and a positive correlation with the mitotic index was noticed in the Anneroth grading system. This correlation was also consistent with the grades of tumors. In conclusion, grading the histopathological findings of FOSCCs was considered an important criterion in determining the malignancy of the tumor. When the immunohistochemical parameters were evaluated, the epithelial origin of the tumor was confirmed with pan-cytokeratin. The relationship between COX-2, EGFR, and Ki-67 and histopathological malignancy criteria laid the groundwork for the development of possibilities that can play an important role in the clinical evaluation and treatment of the patient.

Keywords: carcinoma, grading, feline, immunohistochemistry, squamous

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Oral Presentation

The role of the systemic inflammatory response in canine mammary tumors

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Objective: Inflammation plays a central role in cancer development and progression. Cancer-related inflammatory response can be demonstrated by some hematological and biochemical parameters. The aim of this study is to show whether inflammation plays a role in the etiopathogenesis of canine mammary tumors. **Materials and methods**: For this purpose, in 31 dogs with malignant mammary tumors Neutrophil/Lymphocyte Ratio (NLR), Lymphocyte/Monocyte Ratio (LMR), Platelet/Lymphocyte Ratio (PLR), WBC/Lymphocyte Ratio (WLR), Albumin/Globulin ratio (AGR), Systemic Immune-Inflammatory Index (SII = T × N/L) and Prognostic Nutritional Index (PNI = 10 × ALB + 0.005 × lymphocyte/mm3) values were evaluated by comparing with 12 healthy dogs as potential biomarkers of cancer-related systemic inflammatory response . **Findings:** As a result of the statistics, NLR, TLR, WLO, SII and PNI values showed statistically significant differences between the groups. LMO and AGO values were not statistically significant, although there was a difference between the groups. **Results:** Biomarkers that show systemic inflammatory response in human breast cancers are widely used as a diagnostic, treatment management and prognostic factors. The literature data that show the systemic inflammatory response in canine mammary tumors is still quite limited. Based on the data of this study, inflammation was thought to play a role in the etiopathogenesis of canine mammary tumors.

Keywords: canine, mammary tumor, inflammation, biomarkers

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Oral Presentation

As a diagnostic tool; TGF-β superfamily

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Abstract

In recent years, interesting advances have been made in research on the elucidation of intraovarian control mechanisms that coordinate many follicular activities from the occurence of follicles to follicular growth, deviation, maturation, ovulation and corpus luteum formation. Primordial follicle formation, the transition of follicles to primary and secondary stages, is observed in the early stages of folliculogenesis in mammals. In this process, while the follicle pool is consist of the follicles are prepared to move on to the next growth stages. Abnormalities of follicle formation are a major threat to the size of the antral follicle pool. The disruptions experienced during the follicular developmental stages may cause the follicles not reach sufficient maturity and to prematurely deplete the follicle reserve. Transforming Growth Factor-β (TGF-β) superfamily is a large group of molecules which are regulating many cellular processes. TGF-β superfamily member growth factors; It is responsible for regulating basic biological processes such as cellular growth, differentiation and apoptosis. These proteins play an active role in primordial follicle development, granulosa and theca cell proliferation, follicular atresia, gonadotropin receptor development, oocyte maturation, luteinization and corpus luteum formation. Prominent members of this superfamily in reproductive biology can be listed as TGF-β's, Bone Morphogenic Proteins (BMP), Growth Differentiation Factors (GDF), activins, inhibins and Anti-Müllerian Hormone (AMH). Today, in addition to human medicine, especially inhibins, AMH, BMP-6 and GDF-9 are frequently used in veterinary medicine, both in scientific research and clinical field that as an indicator of various reproductive markers. These members of the TGF-β superfamily; It plays a guiding role in the evaluation of fertility-related parameters such as ovarian reserve and oocyte quality, in the determination of dysfunctional follicular disorders, in the diagnosis of pathologies such as granulosa cell tumors and ovarian remnant syndrome, in multiple ovulation and embryo transfer studies in assisted reproductive technology. The aim of the present study is to reveal the importance of the TGF-β superfamily in terms of fertility and its usability in gynaecological cases.

Keywords: feline, canine, growth factor

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Oral Presentation

Improving the approach of pollen analysis of honey

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Abstract

Honey is a valuable food product that has high nutritional and medicinal properties. The honey value depends directly on its quality and, most importantly, naturalness. The main indicator of the naturalness of honey is the content of pollen grains in honey plants, according to the National Standard DSTU 4497: 2005 “Natural honey. Technical requirements” and the Technical Regulation “Requirements for honey” № 330 dated 19.06.2019. The gist of the pollen analysis approach, which is given in paragraph 10.3 “Method of pollen analysis” DSTU 4497: 2005, is to identify the presence of pollen grains and further identification of their botanical incorporation. This technique involves defining the contents of a centrifuged precipitate drop of honey solution with an alcoholic solution of fucsin with a mass fraction of 10%. Pollen grains are also dyed during defining. The disadvantage of this method is that the pollen grains and the surrounding area are dyed evenly in bright pink or dark red colour, which complicates their visualization and makes it virtually impossible to further identify. In this regard, we aim to improve the method of dyeing pollen grains, eliminating the shortcomings of the standard method. To achieve this goal, the study was conducted in the form of using working solutions of fucsin of different concentrations: №1 (1:20), №2 (1:15) and №3 (1:9) – the main is an alcoholic solution of fucsin 10%); №4 (0.5:9), №5 (0.2:9) and №6 (0.1:9) – the main working solution of fucsin №3. It was found that the best pollen grains are visualized while using a working solution № 6: the grain is dyed in a monotonous pink colour, exine and intina - in a bright pink colour, the field around the grains - pale pink. The intense pink colour of the proposed method of exine and intina is that allows you to effectively identify the botanical affiliation of pollen grains.

Keywords: honey, pollen grains, pollen analysis, naturalness, quality, fucsin

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Oral presentation

The impact of feed additives made of marine hydrobionts on the condition of broiler chicken bone tissue

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Abstract

The aim of the scientific work was to define the strength of bone tissue of broiler chickens and the concentration of calcium and phosphorus in their bone tissue while adding such two feed additives as a mineral feed additive (MFA) and a protein-and-mineral feed additive (PMFA) to broiler chicken ration. The feed additives are made of milled marine hydrobionts remnants after their initial processing (Patents of Ukraine No. 34634 and No. 42687). MFA is made of Mediterranean mussel shells (Mytilus galloprovincialis) and sea water. PMFA contains big mussel shells, small mussel bodies, red algae Phyllophora (Phyllophora nervosa) and sea water. Shin bones of 42-day-old chickens served as the material for the present scientific research. The experiment was conducted on the basis of 5 groups of Ross 308 broiler chickens. Chickens of the control group received only the main ration (MR) that was well-balanced in the main nutrients. Chickens of the experimental groups that were aged from 20-day-old to 42 day-old were given feed additives along with the main ration. Chickens of the D-1 and D-2 groups received mineral feed additive (MFA), while the D-3 and D-4 groups were given protein-and-mineral feed additive (PMFA). Broiler chickens of the D-1 and D-3 groups received only 93% of the main ration and 7% MFA and PMFA correspondingly; broiler chickens of the D-2 and D-4 groups in addition to the main ration (100%) received 7 % MFA and PMFA correspondingly. Feeding broiler chickens with feed additives contributed to the increase of their bone tissue mineralization. Thus, the concentration of non-organic calcium and total phosphorus in the bones of the D-1 group of chickens increased correspondingly by 19,9 and 34,1 % ($p \leq 0,01$), the D-2 group by 23,6 % ($p \leq 0,05$) and 43,0 % ($p \leq 0,001$), the D-3 group by 16,8 % и 43,6 % ($p \leq 0,001$), the D-4 group by 34,2 % ($p \leq 0,05$) and 70,9% ($p \leq 0,01$). Using feed additives led to the improvement of broiler chicken shin bones strengths. The mechanical bending tension of bones that corresponds to the strength indicator was higher: the D-1 group of chickens by 10,9 %, the D-2 group by 48,9 % ($p \leq 0,001$), the D-2 group by 10,8 % ($p \leq 0,001$) and the D-4 group by 52,2 % ($p \leq 0,05$). Thus, the broiler chickens who received feed additives along with the main ration had more bone strength, higher calcium and phosphorus concentration in their bone tissues than the broiler chickens that were given feed additives as a part of their main ration.

Keywords: broiler chickens, feed additives, marine hydrobionts, calcium, phosphorus, strength, bone tissue

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Oral Presentation

Flaxseed and sunflower oil affect egg production and quality in hens exposed to stress

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Abstract

In the study, effects of dietary supplementations with flaxseed oil and sunflower oil on production performance, egg quality, and the eggs' sensory attributes in laying hens exposed to high stocking density stress were investigated. A total of one hundred and forty-four 38-week-old "Atak-S" breed laying hens were used. The hens were divided into two main groups as stress group and non-stress group, which both were further divided into three subgroups: basal diet, 2% flaxseed oil diet, and 2% sunflower oil diet groups. High stocking density stress was induced with a space allowance of 357 cm2 per hen. All hens were weighed initially and just before the study has been completed, and the body weight gain was calculated. Egg production per hen was daily recorded, and production performance, mean egg weight, and egg mass were estimated. Moreover, eggshell weight, thickness, strength, Haugh unit, albumen height, and egg yolk color were measured. Trained panelists evaluated egg samples collected from each subgroup regarding sensory attributes such as taste, flavor, color, and texture. Flaxseed oil decreased egg production and egg mass in the non-stress group while increasing the stress group's same parameters. Sunflower oil increased average egg weight in all hens and paled the egg yolk's yellow color in the stressed hens. Moreover, the non-stress group's eggs were more appealing in taste than those of the stress group. Flaxseed-supplemented diet enhanced the sensory attributes in the eggs of both stress and non-stress groups. Furthermore, neither of the oil supplementations generated a strange or repulsive odor in the eggs. In conclusion, dietary flaxseed oil supplementation might be recommended to improve egg production and egg sensory attributes in stress-exposed laying hens. Sunflower oil supplementation might be offered for increasing egg production and some sensory parameters in both stressed and unstressed hens.

Keywords: hens, flaxseed oil, sunflower oil, stress, egg quality

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Oral Presentation

Determination of heavy metal amounts of aluminum, mercury and lead in milk offered for consumption in Erzurum province

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Abstract

In this study, it was aimed to detect heavy metals of aluminium, mercury and lead in raw milk collected from Erzurum region. Analysis of heavy metals in 50 raw milk samples collected from Erzurum region was carried out in the ICP-MS device situated in Atatürk University Eastern Anatolia High Technology Application and Research Center. Statistical analyzes were performed with GraphPad Prism 7.0 (GraphPad Software, San Diego, CA, USA). Statistical values were stated as mean ± SD, and the results were evaluated with the one-way ANOVA method. According to the analysis results of 50 raw milk samples collected from Erzurum region, obtained results were aluminium 478.7-698.1 µg/L, Mercury 0.0016-0.015 µg/L, lead 0.89-2.61 µg/L. According to the results of the analysis, heavy metal levels analyzed in 50 raw milk samples in terms of Turkish Food Codex were found to be below the limits, and only high levels of aluminium according to JECFA.

Keywords: aluminum, mercury, milk,

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Oral Presentation

Evaluation of nutrient composition a nd in vitro true dry matter digestibility in Aktaş and Güneş variety o f buckwheat grains

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Abstract

Buckwheat is a plant species in the *Fagopyrum* genus belonging to *Polygonaceae*family. *Fagopyrum esculentum Moench* and *Fagopyrum tataricum* are the most widely grown two buckwheat species in the world. Buckwheat is a new plant for Turkey, and there are two registered varieties known as Aktaş and Güneş. This study was carried out to evaluate Aktaş and Güneş buckwheat grain varieties in terms of nutrient composition and *in vitro* true dry matter digestibility. In this study, Aktaş and Güneş varieties of Buckwheat (*Fagopyrum esculentum* Moench) were used as plant material. Seeds were sown in the experimental area in a randomized block design with 3 replications, in 2.4×4 m (9.6 m^2) plots at a depth of 4-5 cm. Each parcel was reaped separately 13 weeks after sprouting and the plants were harvested as grains. The samples were ground in a mill with a sieve diameter of 1 mm (without dehulling process) and used in the analysis. There were no statistically significant difference (P>0.05) between varieties in terms of the basic chemical compositions (dry matter [DM], Ash, organic matter [OM], crude protein [CP], ether extract [EE], crude fiber [CF], nitrogen-free extract [NFE], non-fiber carbohydrate [NFC]), fiber fractions (neutral detergent fiber [NDF], acid detergent fiber [ADF], acid detergent lignin [ADL], hemicellulose [HC], cellulose [C]), predicted total digestible nutrients (TDN %) and energy (Mcal/kg DM) contens (digestible energy [DE], metabolizable energy [ME], net energy lactation [NEL]), and the percentage of *in vitro* true dry matter digestibility (IVTDMD). When compared to other studies in terms of both basic nutritional composition and digestibility, the similarities and slight differences show that buckwheat grains have an important potential in animal nutrition as well as human nutrition. Comprehensive studies on this subject will be very useful for taking place of buckwheat in the livestock industry as an alternative feed material.

Keywords: Buckwheat grains, Aktaş buckwheat variety

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Oral Presentation

Is it possible to change milk secretion of drugs with soy enriched diets in lactating ruminants?

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Abstract

Soy is the most commonly used protein supplement in beef and dairy diets. Soy, which is also used as a common protein source in animal feed, is palatable and has a good amino acid balance and high bioavailability. In vivo and in vitro interaction of flavonoids, including isoflavones such as genistein and daidzein, with several ABC transporters, including BCRP/ABCG2, has been demonstrated. BCRP presence in ruminants could affect the efflux of hydrophobic toxins and drugs, including their active secretion to milk and a reduction in the withdrawal time of the drug milk residues. As a result of inhibition of efflux transporters such as BCRP, changes in drug pharmacokinetics and drug transfer into milk have been observed. In this respect, the use of forage supplemented with BCRP inhibitors may be beneficial to control drug accumulation in milk and prevent undesirable contamination of milk. It is aimed to reduce the drug withdrawal periods for dairy animals with the procedure in question. In this presentation, it is aimed to give information about the importance of soy-enriched diets in the nutrition of ruminants during the lactation period and the effect of transport proteins on the transfer of drugs into milk.

Keywords: BCRP/ABCG2, pharmacokinetics, soy, withdrawal time, ruminant

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Oral Presentation

Foodborne Parasites

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Abstract

Foodborne parasites affect millions of people life quality to negative way all around the world, even cause to death. In addition, they cause significant economic losses by disrupting animal health. Most of them consist helminth and protozoa which are zoonotic character. These parasite's different forms which cause various and severe diseases, are transmitted to humans by food and water. Consumption uncooked or undercooked products, high demand of ready-to-eat foods, increasing the worldwide popularity of traditional and ethnic meals which prepared with raw foods led to spreading of diseases caused by these parasites. Also these parasites incidence at different geographies increase with situations in our developing world such as increasing food and animal trade, climate changes, global warming, frequent occurrence of natural disasters. A technical guide has developed by Food and Agriculture Organization of the United Nations(FAO) and World Health Organization(WHO) with the experts and they have determined life-threatening 24 important parasite with defining some criteria. The 10 parasites that have the greatest global impact are, respectively, from helminths; *Taenia solium(1), Echinococcus granulosus(2), Echinococcus multilocularis(3), Trichinella spiralis(7), Opisthorchiidae ailesi(8), Ascaris spp.(9)* and from protozoa*; Toxoplasma gondii(4), Cryptosporidium spp.(5), Entamoeba histolytica(6), Trypanosoma cruzi(10)* have been reported. Turkey is a country that has plenty of fresh/salt water resources, high fish production and consumption. Therefore parasites belong to the Anisakidae family which is in the 17th rank at this list, have high probability for occurance in our whole country. The species of this family will be explained in addition to these ten parasites which are mentioned in this review. The purpose of this review is explaining these parasites situations in our country and worldwide, ways of their transmission to human, how they affect human health, and emphasize the topic importance with the framework of one health approach.

Keywords: food, helmith, protozooa, transmission

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Oral Presentation

The role of microRNAs on aging

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Abstract

MicroRNAs (miRNAs) are endogenous non-protein-coding RNAs, 19-23 nucleotides long, that are transcribed from evolutionarily conserved regions in the gene. miRNAs were first discovered by Lee et al. in 1993 from a nematode, *Caenorhabditis elegans*. The first miRNA is called Lin-4. They either prevent translation by partially binding to the target mRNA, , or silence gene expression by cutting target genes. They have effects on cell proliferation, development, differentiation, metabolism, intercellular signal transduction and apoptosis. In addition, there is increasing evidence that miRNAs play an important role in the development, progression and prognosis of numerous diseases, including tumorigenesis. At the same time, miRNAs play an important role in the aging process, as in many biological mechanisms. Although the aging process occurs under many factors, miRNAs also have important effects on how this process will occur among individuals. One of the possible causes of aging, which is thought to be valid in all vertebrates, is the accumulation of iron molecules in nerve cells. As a result of research, scientists found that this iron accumulation is linked to a miRNA called "miR-29". In this study, where Alessandro Celileno's team used *Nothobranchius Furzeri*, a fish species in Africa, a large amount of iron accumulation was observed in nerve cells when they inhibited the activity of miR-29 molecule, which is known to cause early brain aging. They also revealed that young fish had more miR-29 molecules in their nerve cells when compared to those of aging fish. Therefore, it was concluded that miR-29 molecule acts as an anti-aging molecule and prevents iron accumulation in nerve cells. Although studies have been conducted on the effect of miRNAs on the aging process in human, as far as we know, no studies have been conducted on cats or dogs yet. Since the life span of dogs and cats is shorter than human and they are exposed to the same environmental factors, cat/dog aging studies may create a suitable model for humans.

Keywords: miRNA, *Caenorhabditis elegans*, dog, cat, aging

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Oral Presentation

Acute respiratory injury model in rats

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Aim: Acute respiratory distress syndrome (ARDS) can develop as a result of many diseases and It causes a high rate of death. Research on treatment is still continuing. Thats why, we aimed to create an acute respiratory tract injury model with low mortality risk in rats. **Material and method:** Three 160 gr Winstar Hannover male rats were used in the prestudy. One of the rats was left as a control and was sacrificed. The other two were intubated and intratracheal lipopolysaccharide (LPS) administered. One of the rats which LPS was applied was sacrificed 6 hours and the other 12 hours later, and the lungs, brain, heart, kidney, liver and intestines were examined histopathologically**. Results**: In both of the rats treated with LPS, inflammation was observed in the peribronchial areas, which decreased more intensely towards the periphery of the lung. However, it was noted that inflammation was more intense in the lung of the rat, which was sacrificed after 12 hours. No pathological findings were detected in other organs. **Conclusion:** In the LPS-induced acute respiratory tract injury model, the lung periphery remains intact, allows a controlled, local inflammation, and doesn't affect other organs, significantly reducing the mortality risk of the subjects. This model's feature is important for the sustainability of research.

Keywords: ards, lipopolysaccharide, mortality, research, model

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Oral Presentation

Aircool

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Abstract

Introduction: World Health Organization(WHO) defines sudden deathes as "deaths happening within 24 hours of the begining of symptoms". Sudden cardiac deaths account for 15-20% of all deaths. The first aim after cardiac arrest is to provide spontaneous circulation, and then the most important thing is to prevent the progress of neurological damage. **Aim:**Provide the patient with chilled oxygen therapy and to establish a system that will enable the therapeutic hypothermia application to be initiated as early as possible. For this purpose, we have produced a medical device to be used in the laboratory of experimental animals in order to study animal models before human models. While this device is avaible prototypical for human studies, it is sufficient to induce hypothermia for animal experiments specifically.**Device:**It has the feature that cooling oxygen to (–4) degrees. In addition,the device is avaible to the appropriate pressure and volume of oxygen to the experimental animal. In the creation process of the device, its compliance with medical standards was taken into account. Although the device was developed to develop a new method in the treatment of therapeutic hypothermia, it can also be used in studies planned to with cold air or other gases in animal experiments. The most important disadvantage of the current prototype device is that it is not compatible with mechanical ventilators, and we continue to work on this subject.**Innovative aspect of the device:**There is no treatment way in which only oxygen is used by cooling in order to create hypothermia for therapeutic purposes in the world. The currently used technique cool the patient by placing a cannula in the large vein and cooling the blood passing around the cannula, or methods that allow the patient to cool down by injecting a large amount of cold serum into the vein. We have determined our method is a faster, more effective and reliable method compared to the currently used methods.**Result:**The device can be used in animal experiment studies where the therapeutic hypothermia method will be used in experimental animal laboratories, for educational purposes in veterinary faculties, and in pre-production studies in pharmaceutical companies.

Keywords: therapeutic hypothermia

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Oral Presentation

A Brand new discipline: Comparative epigenetics

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Abstract

Epigenetics is defined as "the branch of science that examines changes in gene expression which is not based on changes in DNA sequence and can be inherited in mitosis and sometimes meiosis," and, with its rapid development, forces us to reconsider our knowledge in all fields of biology, especially in genetics, embryology, and evolution. Epigenetic mechanisms regulate gene expression at different levels like DNA (DNA methylation), chromatin (histone modifications, chromatin rearrangements, three-dimensional chromatin organization), post-transcriptional (RNA modifications, functions of non-coding RNAs), even post-translational (protein refolding, prions) levels. How the underlying genetic mutations affect phenotype depends on interaction with other genes in the genome and functioning of epigenetic mechanisms. Epigenetic mechanisms form an interface that enables the genome to interact with the environment. Although the concept of epigenetics emerged with works of Conrad H. Waddington in 1940s, studies in this field gained momentum with the development of molecular biology techniques in 1980s, and the completion of genome sequencing studies in 2000s. However, with technological advances, this new branch is already divided into sub-disciplines. Comparative epigenetics is the discipline that studies epigenetic modifications conserved in different animals and tries to uncover epigenetic mechanisms that provide phenotypic plasticity, acclimation, and adaptability. Since there is significant variation among animals in biological traits, including reproduction and sex determination, a wide variation can be expected in epigenetic mechanisms that regulate organisms' interaction with environment. Studying different animals will help elucidate different aspects of epigenetic mechanisms. Whole-genome sequencing studies in species other than humans and model organisms are still scarce but increasing rapidly, and early studies in different species suggest more and different epigenetic mechanisms than previously known. Moreover, information obtained from comparative epigenetic studies will provide significant benefits in fields like agriculture, climate change, environment and wildlife protection, and ecotoxicology.

Keywords: comparative epigenetics, epigenetics, adaptation, plasticity

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Oral Presentation

Liar human, deceptive animal: Borders that reunite us

Burçak Özkan

Abstract

With Lying and deception show up as a behaviour in humans and animals respectively. For both species this behaviour brings important social consequences. Today, it is well known that all behaviours are structured on body-neural system/brain-environment totality. All living beings have a nervous system/brain shaped according to their evolutional properties. This nervous system/brain form a cognitive-affectional-behavioural background and a species-specific identity. It is observed that deceptive behaviours in animals contain -in additon to those programmed biologicallly- some named as "tactical deception also noted in humans as manipulative deception . Manipulative tactical deception requires -in addition to some other cognitive-affective abilities- a Theory of Mind, which existence in animals is disputable. Tactical deception is accepted as an evidence for the existence Theory of Mind in animals by some researchers. In this study it is aimed to evaluate lying and deception behaviours in humans and animals based upon some scientific findings of various disciplines such as evolutionary biology, comparative cognition, ethology and neuroscience by adopting a comparative viewpoint and to establish some inferences about the relation of consciousness-behaviour for both species.

Keywords: consciousness, behaviour, brain, lie, deception

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Oral Presentation

Immune-induced optic neuritis in a maltese terrier dog treated with immunosuppressive steroid

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Abstract

Optic neuritis is a clinical syndrome characterized by unilateral or bilateral acute visual loss and variability in the pupillary light reflex (PIR), mainly observed in small and medium-sized breeds. It may occur due to traumatic, infectious, toxic reasons and nutritional problems, as well as mostly due to Granulomatous Encephalitis (GME). GME is an inflammatory disease characterized by granulomatous lesions, nonsupurative meningitis in the central nervous system. Since the optic nerve is also an extension of the forebrain, optic neuritis is also seen as a form of GME. Fundus examination of most dogs with optic neuritis may show changes in the optic nerve head and peripapillary region. Magnetic Resonance Imaging (MRI), complete neurological and ophthalmological examination, cerebrospinal fluid (CSF) and blood tests should be performed in the differential diagnosis of other causes that cause acute blindness. Our case consisted of a 7-year-old Maltese Terrier male dog brought to Istanbul University-Cerrahpasa Veterinary Faculty Surgery Clinic with the complaint of sudden blindness. In the neurological examination, PLR and menace response in both eyes were lost. Ophthalmological examination revealed edema at the right optic nerve head and increased intraocular pressure.Cranial MRI revealed focal nodular enhancement of 5-6 mm on the right of the optic chiasm. Cytological and microbiological examination of CSF revealed no abnormal findings. Complete blood count, routine biochemistry and thyroid function tests were normal. Immediately, intravenous immunosuppressive dose steroid and osmotic diuretic serum treatment was started.On the third day, we were informed that the patient was following moving objects at home. On the fourth day, it was seen that the menace response returned in both eyes, the PLR was normal on the left and weak on the right, and immunosuppressive dose steroid therapy was continued. After a month, it was determined that the nodular contrast involvement in the optical chiasmal align in repeated MRI was completely lost and the patient's neurophthalmologologic findings disappeared. With this presentation, we wanted to emphasize the importance of evaluating the evaluation with MRI for the early separator diagnosis and treatment of patients with acute blindness and PLR loss in dogs.

Keywords: dog, optic neuritis, granulomatous encephalitis, mri

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Oral Presentation

Effect of platelet-rich fibrin (PRF) in non-union treatment

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Abstract

Introduction: Non-union is a condition that affects the patients quality of life, imposes a financial burden on the owner, and is difficult to manage for the operator. Non-union can be caused by many reasons and only be treated operatively. PRF naturally contains growth factors that help tissue regeneration, therefore has much potential in surgical fields and is applied in humans but is not yet applied in non-union cases in cats and dogs. **Material and Methods**: In the cases of our study, 4 cats and 2 dogs were brought to the IUC Veterinary Faculty Surgery Depertment Clinic, who were unable to use their damaged legs, with a clear and marked nonunion of the fracture line in their radiographs. Case1;7-year-old male dog with antebrachium fracture had plate and intramedullary (IM) pin osteosynthesis and there was no healing for 2 months. Case2;7-year-old female cat with femur fracture had Schanz-pin osteosynthesis and no healing was observed for 3 months. Case3;10-month-old female cat with a femur fracture had an IM-pin osteosynthesis and no healing was observed for 2 months. Case4;1-year-old male cat with an open tibia fracture external fixation was applied and no healing was observed for 3 months. Case5;1-year-old female cat with antebrachium fracture had plate and IM-pin osteosynthesis and was no healing for 3 months. Case6;10-month-old male dog with antebrachium fracture had an IM-pin osteosynthesis and there was no healing in the patient for 2 months. Under general anesthesia the sequestrant tissue was removed, drainage was provided. PRF was placed at the area. Only in case6, osteosynthesis material was removed during PRF application and plate osteosynthesis was performed, the bandage was applied for one month. **Results:** On the 15th-day cases 1,2,3,4 and 5 were started using the affected legs. Radiographic healing was observed in all cases and the fracture line was completely closed. **Conclusion:** It was concluded that bone union was achieved in non-union cases, the extremities of the patients regained their former function, and PRF is an effective biomaterial in bone healing.

Keywords: fracture, regenerative medicine, bone healing

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Oral Presentation

Patellar groove replacement with prothesis in cats and dogs

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Abstract

While patellar luxation is one of the most common orthopedic problems in dogs, it has been rarely reported in the literature compared to canine PL studies in cats. The condition affects primarily small/toy breed dogs, however the prevalence of which appears to be increasing in large breeds. Most cases are considered developmental with anatomical deformities leading to failure of the stifle extensor mechanism. Joint pathology increases with age and luxation grade, and surgical correction should be performed at the earliest opportunity to limit further development of skeletal abnormalities or degenerative joint disease. Surgical techniques available for the correction of PL in dogs include femoral trochlear sulcoplasty, tibialtuberosity transposition (TTT), soft tissue imbricationand/or release, and femoral corrective osteotomies. The same techniques are used for correction of PL in cats. A novel method of treating femoro-patellar instability in association with severe femoro-patellar osteoarthritis, by substituting the femoral trochlear with a patellar groove replacement prosthesis is reported. Patellar groove replacement (PGR) is the surgical technique that is used to replace the trochlear groove with an artificial prosthesis. In this pilot study, clinical status and the surgical technique and outcomes of applying the PGR of 2 dogs, and 1 cat which were referred to Istanbul University, Faculty of Veterinary Medicine, and Department of Surgery with the complaint of hindlimb lameness and diagnosed with 3rdand 4th degree patellar luxation, were assessed.

Keywords: dog, cat, patellar luxation, patellar groove replacement

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Poster

Detection of humoral and cellular immunity on b. abortus s19 vaccinated cows with conjunctival route and monitoring of the immune response

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Abstract

Brucellosis is a contagious, chronic, necrotic and inflammatory disease that causes abortion and infertility in animals such as cattle, sheep, goats, rams, pigs and dogs, especially by localizing in genital organs such as testicles, breasts and uterus. As it is known, Brucella agents are intracellular and immune response development is both humoral and cellular. The main cytokine that causes cellular immune response stimulation is interferon gamma (IFN gamma). Lipopolysaccharide (LPS) and oligopolysaccharide (OPS) are widely used as diagnostic antigens in serological tests. For use in this study, blood was collected from 60 cattle conjunctivally vaccinated with B. abortus S-19. Blood was collected from 30 calves (3-5 months old) who were vaccinated for the first time before vaccination and on the 46th, 85th and 169th days following vaccination to obtain serum and plasma. Blood was collected from 30 cattle vaccinated a year ago, aged 15-17 months, before the second vaccination and on the 46th, 85th and 169th days following the second vaccination. While the data obtained as a result of the study show that the humoral immune response based on the antigens used for vaccine follow-up is not sufficient for long-term follow-up of immunity, the detection of IgG response at the rate of 100% in young people and 96.6% in adults on the 46th day indicates that the first 46-day period of the study may be important in terms of monitoring immunity. In the study, it was determined that the IFNg results were not significant between the groups in terms of monitoring the immune response.

Keywords: brucellosis, immune response, vaccine

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Poster

The effectiveness of the microbiological express method to determine the overall toxicity in meat of slaughter animals

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Abstract

Today, a number of chemical-analytical apporoaches have been developed and used to determine the presence of toxicants in food products - spectrometric, photometric, chromatographic, etc. However, despite their high sensitivity and accuracy, they do not involve the detection of a general reaction of the recipient's body to the effects of the object as a whole. This is due to the fact that the test object may contain toxicants, the content of which was not predicted during the study or little studied substances. The main disadvantage of chemical analytical methods is that they cannot take into account the nature of the combined action of toxicants on the consumer. Due to these disadvantages, the development of an express method for determining toxicity by biotesting remains relevant. The aim of the study was to determine the feasibility and effectiveness of using the microbiological express method using the *Colpoda steinii* ciliates to determine the overall toxicity in meat of slaughter animals. According to the results of research, a method of using c.p. acetone, which allows to isolate lipophilic toxicants, has been developed with the aim to determine the toxicity in meat of slaughter animals. In order to establish the general toxicity, it is proposed to carry out parallel extraction of test samples with distilled water and c.p. acetone. It has been experimentally proven that the data of the toxic properties of meat determined by the proposed method are identical to those, which were obtained with the use classical biotesting methods: bioassays on laboratory animals (white mice) and microbiological methods with the use *Tetrachimena piriformis* ciliates as a test organism. Depending on the degree of toxicity of the meat and the extractive substance, the results of the study are obtained in the period from 3 to 180 minutes, when using the microbiological express method using *Colpoda steinii* ciliates as a test object.

Keywords: food, meat, safety, toxicity, biotesting, ciliate *Colpoda steinii*

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Poster

Management of TVT case in animal shelter and its reflection on CBC

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Abstract

Transmissible Venereal Tumor (TVT), also known as Sticker sarcoma or Sticker tumor, contagious lymphosarcoma, contagious granuloma, is common in stray animals who living crowded places, especially non-neutered dogs. This disease, which is seen all over the world, has been named Transmissible Venereal Tumor because it is transmitted by coitus. The tumor can be transmitted not only by coitus, but also by contact such as stratching, sniffing, licking, bitting the lesions. A 2-year- old, unneutered, female, Husky stray dog was referred to animal shelter with complaints of vaginal discharge. A diagnosis of TVT after physical examination, complete blood count and cytological examination. Treatment protocol was established with the most widely used antineoplastic agent Vincristine sulfate. Treatment was followed by physical examination, hemogram values and cytological examinations. The shelter designed so that the patient would not be in contact with other animals and the risk of contamination was eliminated. In this disease, even animal shelter conditions where animals are constant contact with each other, as the correct diagnosis and treatment method is achieved quickly.

Keywords: transmissible venereal tumor, vincristine, venereal, cytology

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Poster

A case of intermittent gastroesophageal invagination and surgical treatment in a cat

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Abstract

Gastroesophageal invagination is acute or intermittent invagination of the stomach into the caudal lumen of the thoracic esophagus. Although it is mostly seen in large breed dogs, it can occur rarely in cats as well. The etiology is unclear, but it is assumed that this condition arises as a result of megaesophagus, esophageal dysmotility disorders, or esophageal hiatus laxity, increasing the possibility of gastric invagination into the esophagus. The diagnosis and surgical treatment results of a case of intermittent gastroesophageal invagination in a cat with megaesophagus are presented in this presentation. The case material is a 3-year-old Scottish Fold female cat which has been brought to Istanbul University Cerrahpaşa Faculty of Veterinary Medicine, Surgery Clinic. Gastroesophageal invagination was diagnosed as a result of hemogram and biochemistry analyzes, direct and indirect radiography, endoscopy and tomography examinations in the patient which was presented with anemnesis of vomiting, respiratory distress and weight loss at different times in the last 6 months. Hiatus reduction and right fundus gastropexy by laparotomy were used as a treatment method. Applying gentle traction to the duodenum and stomach, the invagination was reduced and then esophageal hiatus was narrowed. Fundus gastropexy was applied to prevent recurrence. Post-operative treatment of gastritis and controlled feeding for megaesophagus were administered to the patient. In the control radiograph performed on the 10th day of the patient, no change was observed in the megaesophagus and gastroesophageal invagination recurrence was not observed. It was observed that the clinical findings related to the disease completely disappeared and the patient gained weight. Conservative megaesophageal treatment of the patient is stil ongoing. In conclusion, gastroesophageal invagination in cats should be considered as a differential diagnosis in patients with chronic vomiting, regurgitation and respiratory distress. Due to its intermittent character, definitive diagnosis should be made by esophagogastroscopy and surgical treatment should be preferred to prevent recurrence.

Keywords: megaesophagus, regurgitation, hiatus reduction, gastropexy

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Poster

Comparison of shredding traits in meat and dairy cattle breeds

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Abstract

Ten carcasses obtained from angus and holstein crossed male cattle were used. Quartering of carcasses was done at the eleventh intercostal space. As a result of the sheredding process; it was determined that ground beef and chuck meat ratios of Angus cattle were higher, and the ratio of valuable meat (tenderloin, sirloin, ribeye), round meat and bone was lower.

Key Words: Carcass Shredding, Bone Ratio, Meat Ratio

Introduction: Carcass shredding process; It can be expressed as the process of separating the muscles from the bones and grouping the pieces of meat according to their parts. Cattle meats are divided into sections valuable meats, round, chuck and ground beef.

Materials and Methods:

1. Ten carcasses obtained from angus and holstein crossbred cattle aged 12-24 months were used.
2. An electric hand saw was used to quartering carcasses.
3. Digital weighing scale was used in carcass weighing.
4. A scale was used to weigh pieces of meat and bones.
5. A knife was used in the carcass shredding process.

Results:

- It was determined that the ground beef ratio of the carcasses obtained from Angus cattle was 48.31% and from Holstein cattle was 36.78%.
- It has been determined that carcasses obtained from Angus cattle have a lower ratio of valuable meat, bone and round, but a higher ratio of ground beef.
-

Angus Cattle	Weigh (kg)	Ratio (%)
Ground beef	1.744	48.31
Chuck	520	14.40
Round	666	18.45
Ribeye	103	2.85
Sirloin	70	1.93
Tenderloin	35	0.96
Bone	458.5	12.7

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Poster

Angus Cattle	Weight (kg)	Ratio (%)
Ground Beef	1.744	48.31
Chuck	520	14.4
Round	666	18.45
Ribeye	103	2.85
Sirloin	70	1.93
Tenderloin	35	0.96
Bone	458.5	12.7

Discussion: Performing the shredding process individually may provide more accurate results.

Conclusion: Consequently the study, it was seen that the ratio of valuable meat and bone was lower than the carcasses of the other group due to the higher average carcass weight of Angus cattle carcasses. Also, Angus cattle had a higher fat content compared to Holstein cattle, resulting in a higher ground beef ratio and a lower round beef ratio.

References: TSE, (2007). Sığır-Gövde Etleri (Karkas), TS668, Ankara.

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Combination radiochemotherapy treatment of a cat diagnosed with nasal B-cell lymphoma: A case report

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Abstract

Nasal lymphoma, which is one of the most frequently detected nasal tumors in cats, is generally reported to be of B lymphocyte origin and high grade. In lymphoma cases where histopathology and immunohistochemistry have an important place in the diagnosis, radiochemotherapy is gaining more and more importance compared to traditional protocols. In this study, it was aimed to present the clinical and pathological findings of a case of nasal lymphoma and the results of radiotherapy in a cat with neoplasia spreading from the right maxillary region to the frontal region including the nasal cavity and facial deformation in clinical examination. Medical treatment for blood values was applied for premedication in a 7-year-old female tricolor cat with anorexia, respiratory distress and severe anemia. A biopsy sample was taken under general anesthesia and sent to the pathology laboratory. Immunophenotyping was performed to create a targeted treatment protocol for a tumor with histopathologically round cell morphology and high grade malignancy. Immunohistochemical marking method was applied with Vimentin, Cytokeratin, CD3 and CD79a antibodies. The target volume of the patient who was diagnosed with B-cell nasal lymphoma after immunohistochemistry was determined, and computed tomography imaging was performed for radiotherapy planning and metastasis research. Twelve fractions of 300 cGy were determined with radiotherapy sessions 3 days a week. Despite the favorable clinical course of the patient, the treatment for the recurrence of malignant neoplasia was continued with chemotherapy. Information on the classification and treatment of highly malignant and common nasal lymphoma cases in cats is still limited. Chemotherapy and radiotherapy are known to be effective for lymphoma in cats. However, we think that the combined radiochemotherapy protocol is a promising method because it is well tolerated and has the potential to reduce the possibility of possible recurrence due to the progressive character of the tumor. We believe that achieving a 455-day remission in the combined treatment of the patient with radiotherapy and chemotherapy, whose clinical symptoms have decreased and his quality of life has improved significantly since the beginning of the treatment, may contribute to the science of veterinary oncology.

Keywords: immunohistochemistry, cat, chemotheraphy, nasal lymphoma, radiotheraphy

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Poster

Treatment of a cat diagnosed with nasal squamous cell carcinoma with stereotactic body radiation case report

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Abstract

Squamous cell carcinoma (SCC) of the nasal planum in cats is a common malignancy that is invasive to the surrounding tissue, has an aggressive course, and has a high recurrence rate. Besides the surgical excision, radiotherapy application is preferred alone or in combination with other treatment methods. In this study, it was aimed to present the clinical oncological approach of a cat diagnosed with SCC in the nasal planum, which achieved a complete remission with stereotactic body radiation therapy (SBRT) after surgical excision. A four-year-old, neutered, male, tabby cat was brought to clinical examination with the complaint of rapid enlargement of the lesion on the nasal planum and surrounding tissues. A biopsy sample taken from the lesioned area was sent to the pathology laboratory. Histopathological examination revealed SCC. Immunohistochemical marking was performed with Cytokeratin, Vimentin, and Ki67 antibodies to determine the differential diagnosis and prognosis. Due to the local aggressiveness of the tumor, the tumoral lesion was removed by excising the deep and wide margin of the tissue, and reconstructive surgery was performed on the area with a tissue flap. Approximately two months after post-operative recovery, planning was made for both metastasis investigation and radiotherapy with the computed tomography imaging method. The case was treated with the principle of SBRT in 3 fractions of 24 Gy in total to the tumoral area. Current treatment methods in cases with SCC are still in the trial phase. The biggest advantage of SBRT compared to traditional radiation therapy protocols is that it takes shorter treatment time, creates less anesthesia time, and shows superior results, especially in anatomically inaccessible tumors. In conclusion, we think that our case, in which complete remission was achieved with SBRT, is an alternative treatment method for cats with a diagnosis of SCC arising on nasal planum.

Keywords: carcinoma, feline, nasal, squamous, stereotactic

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Poster

A case of treatment of a cat diagnosed with mixed cell diffuse follicular type alimentary lymphoma with CHOP chemotherapy protocol

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Abstract

Lymphoma is the most common malignancy among felines and the most common site of this disease is the gastrointestinal (GI) tract. Alimentary lymphoma is characterized by infiltration of neoplastic lymphocytes and mostly affects the lower and upper GI tract, liver, or pancreas. There are different grades of GI lymphoma, called low grade (lymphocytic or small cell), high grade (lymphoblastic, immunoblastic or large cell), and intermediate grade. Although it is common in older cats, clinically vomiting, diarrhea, anorexia and weight loss are observed. In cases with intestinal localization, serum concentrations of cobalamin and folate are decreased, which is thought to be due to possible poor enteric absorption. Although cytology, ultrasonography, direct or indirect x-ray techniques are helpful in diagnosis, histopathological examination of the lymph node in the affected area is required for the main diagnosis. Although an effective treatment method has not been determined in high-grade GI lymphomas with an aggressive course, chemotherapy is mostly the preferred method. Likewise, an effective chemotherapy drug or protocol is not yet known. In this study, we aimed to present the clinical approach, histopathological diagnosis and chemotherapy treatment of an 11-year-old male tabby cat diagnosed with high-grade diffuse alimentary lymphoma. In the clinical examination of the patient with symptoms of anorexia and chronic vomiting, abdominal pain, constipation and lethargy were detected. Hematological examination revealed lymphopenia and anemia. Direct and indirect positive contrast x-rays were taken with the suspicion of obstruction in the GI system. Diagnostic laparotomy was performed in the case, which was cured with treatment in the preoperative period. A biopsy sample was taken from the hyperplastic cranial mesenteric lymph node for histopathological diagnosis and sent to the pathology laboratory. Following the diagnosis of high-grade alimentary lymphoma, a CHOP chemotherapy protocol was created based on the reference literature. In our case, whose general condition and clinical controls were followed up regularly, no relapse occurred after the end of chemotherapy from the date of diagnosis and including the date of case report.

Keywords: alimentary, CHOP, gastrointestinal, feline, lymphoma

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Poster

Stereotactic radiotherapy treatment in a dog with appendicular osteosarcoma: a case report

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Abstract

Osteosarcoma accounts for 85% of malignant bone tumors in dogs, and it is almost always fatal, even if diagnosed early. Lameness, reflecting the location of the lesion, is usually the earliest symptom. Surgery, radiotherapy and chemotherapy methods are used in the treatment of osteosarcoma. An advanced treatment technique, stereotactic radiation therapy, is an alternative for dogs who cannot undergo amputation or limb-sparing procedures. Stereotactic radiation therapy involves the delivery of high-dose radiation fractions (20 to 30 Gy) to the target area using an external beam of radiation, sparing surrounding tissues with submillimeter accuracy. The aim of this study is to present the clinical findings, pathological diagnosis and stereotactic radiotherapy results of appendicular osteosarcoma tumor in an eight-year-old female Cane Corso Italian Mastiff dog. In the clinical examination, an eight-year-old female Cane Corso Italian Mastiff breed with lameness, local swelling and pain in the left hind foot, and an X-ray examination performed on a 60 kg dog, revealed osteolysis in the distal left fermur. The surgically obtained biopsy specimen was subjected to tissue follow-up procedures in the pathology laboratory, and the diagnosis of productive type osteosarcoma was made after histopathological evaluation. A 36 Gy stereotactic body radiation therapy protocol was created for the case in 3 fractions. A decrease in local pain and neoplastic swelling was noted within a short time after the radiation therapy sessions ended. At the end of the 6-month follow-up, re- lesion development was observed in the primary tumor area. Chemotherapy sessions were started with a dose of 300mg/m2 carboplatin. Pulmonary metastasis was detected in the clinical oncological follow-up of the patient who survived for approximately 2 years with radiotherapy and chemotherapy. Although the average survival time after diagnosis is 2 months in malignant osteosarcoma cases, the process can take up to 6 months with amputation and chemotherapy. On the other hand, we aim to raise awareness with this presentation that stereotactic radiotherapy applications are a successful method in recent times, as well as having a positive effect on pain management, average survival time and quality of life.

Keywords: histopathology, canine, osteosarcoma, radiotherapy, stereotactic

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Poster

Treatment of intranasal transmissible venereal tumor (TVT) with combined radiotherapy and chemotherapy: a case report

Sümeyye Toyga, Evrim Egeden, Gülay Yüzbaşioğlu Öztürk, Funda Yıldırım, Ahmet Gülçubuk, Züleyha Akgün

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Abstract

Transmissible venereal tumor (TVT) in dogs is a malignant tumor transmitted as a result of transplantation of tumor cells. In males and females, it is most commonly seen in the external genitalia as cauliflower-like growths. However, extragenital localization has also been reported. In cases of extragenital TVT, if there is no lesion in the genital organs, differential diagnosis should be made with histiocytoma, lymphoma, poorly differentiated mast cell tumors and amelanotic melanomas. Although surgical excision is not preferred in the treatment, chemotherapy protocols are used, while treatment with radiotherapy is also effective. The case consists of a male Siberian Husky dog, aged seven years and seven months who had symptoms of unilateral nasal hemorrhage and was referred to our clinic with the suspicion of nasal carcinoma as a result of diagnostic investigations that lasted for 5 months in another country. In the clinical examination of the patient, unilateral hemopurulent nasal discharge, reverse senezing and exercise intolerance were observed. Due to the inconsistency in the clinical course of the patient who was referred with the suspicion of possible carcinoma, clinicopathological consultation was made to Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine, Department of Pathology. In order to determine the differential diagnosis, prognosis and appropriate treatment approach, immunohistochemical marking was performed with vimentin, pancytokeratin, CD3, CD79a, chromaogranin, NSE and lysozyme antibodies using the Streptavidin-Biotin method. The patient was diagnosed with TVT histopathologically and immunohistochemically, and after premedication, a weekly session of Vincristine sulfate at a dose of 0.6mg/m2, a total of recommended 6-8 weeks of chemotherapy session was targeted. However, as a result of severe neutropenia attacks after vincristine sulfate administration, radiotherapy was added to the treatment protocol. In total, 1500 cGy radiation therapy was applied in 5 fractions. During this period, the clinical symptoms of the patient decreased and an increase in body weight was observed. We think that the case with a rare diagnosis of intranasal TVT and the combined radiotherapy and chemotherapy treatment without any relapse after treatment contributed to veterinary oncology.

Keywords: intranasal, chemotherapy, canine, radiotherapy, TVT

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Poster

Veterinarians in ONE HEALTH approach: coming to the forefront

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Abstract

The concept of One Health (OH) has become a popular topic at the beginning of the 21st century in the global World. One Health is a collaborative product of multiple disciplines which includes all the interrelations that exist between human, animal and ecological health. The notion of One Health gained importance after the pandemics of SARS2 (2003), Avian Influenza (2005–2007) and even COVID-19 (2019-….) when the humanity has come up against to zoonoses and needed for research, policy and management. Especially, in the last decades, the outbreaks related to food and zoonoses have shown how much animal and human health are entwined. In this respect, veterinarians are at the essential point and play an important role in supporting the OH notion. Veterinarians are the only profession group whose training is based in comparative medicine and the health and diseases of multiple species. On the other hand, veterinarians play an essential role in the animal-based food chain. They have many responsibilities on the health of farm animals, such as animal nutrition and animal welfare to keep food safety and security. As a result, the importance and responsibilities of veterinarians in One Health area are substantial and the vital role in globalised food chain is uncontrovertible.

Keywords: one health, veterinarian, food security, zoonoses

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Poster

Osteochondritis dissekans of shoulder joint in a dog

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Abstract

Osteochondritis dissecans (OCD) is a joint disease characterized by focal separation of the articular cartilage and subchondral bone, which can cause flap or free cartilage fragment detachment. Osteochondritis dissecans of the proximal humerus is a frequent cause of foreleg lameness in young large breed dogs, and some breeds are predisposed. Clinical signs in dogs are bilateral anterior leg lameness, which occurs mostly at the age of 4-9 months. Conservative or operative treatment may be preferred, depending on the patient's age, clinical symptoms, and the extent of the lesion. In this presentation, clinical and radiological examination findings, diagnosis and treatment of OCD on the caudocentromedial surface of the humeral head in the dog are described. In the detailed anamnesis of an 8-month-old, 22 kg, Border Collie male dog brought to the Surgery Clinic of Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine with the complaint of left foreleg lameness, it was learned that there was pain exacerbated by exercise, NSAI was applied, exercise was restricted, but clinical symptoms did not improve. Physical examination revealed significant pain in flexion and extension of the scapulohumeral joint, and mild atrophy of the m.supraspinatus, m.infraspinatus and m.deltoideus . Radiographic examination revealed an irregular concave image with a rounded lucent area along the caudal humeral head associated with mild subchondral sclerosis in the mediolateral position of the left scapulohumeral joint. CT scan performed for definitive diagnosis showed subchondral bone sclerosis and large, irregular subchondral bone defect on the left humeral head. OCD flap in the left shoulder joint and necrotic tissues in the region were removed by arthrotomy. Exercise restriction was recommended to the patient for four weeks. It was observed that the patient started to use the left front extremity intermittently in first week post-operatively, and used it with mild lameness in about 15-25 days. In conclusion, in this case, it was seen that CT provides more specific images than direct radiography for the diagnosis of OCD, and the prognosis is good with appropriate treatment and postoperative care.

Keywords: Osteochondrosis, dog, computed tomography

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Atlantoaxial instability secondary to dens agenesis in a dog

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Abstract

Atlantoaxial instability (AAI) is a condition characterized by excessive mobility due to trauma or congenital causes such as bone and ligamentous anomalies between the atlas (C1, 1st cervical spine) and axis (C2, 2nd cervical spine). It can cause varying degrees of neurological dysfunction due to cervical pain, spinal cord and root compression. While it can occur in dogs of all breeds and ages due to traumatic reasons, it can also occur due to congenital reasons such as anomalies of the dens and ligament structure. Congenital atlantoaxial instability is more common in small and toy breed dogs. The diagnosis of AAI can usually made by survey radiograph. Advanced imaging techniques allow the detection of cervical vertebral anomalies, the evaluation of existing spinal cord injury and syringomyelia. AAI can be treated conservatively or surgically. The case is 14 months old, 5 kg weight, a Miniature Schnauzer breed dog who was referred to the Surgery Clinic of Istanbul University – Cerrahpaşa Faculty of Veterinary Medicine with a history of unwillingness to play for 1-2 months, constantly licking his body and the air, making fly-catching movements, rubbing his paw on his face and neck pain.The patient had no history of trauma. At neurological examination, pain detected on palpation of the cranial cervical region and increased anterior and posterior leg tendon reflexes were detected. A diagnosis of atlantoaxial instability due to dens agenesis was made by evaluating the Magnetic Resonance Imaging (MRI), Computed Tomography and radiography. Since the clinical symptoms of the patient were not severe, conservative treatment was preferred. The patient was prescribed gabapentin at a dose of 10 mg/kg for neuropathic pain control. The dog has been under our follow-up for 4 months during this study and no abnormal findings were added during this period. The conclusion is that survey radiography alone is not sufficient in the diagnosis of atlantoaxial instability, CT has an important place in determining anomalies that may cause instability, and MRI has an important role in determining changes in the spinal cord structure.

Keywords: dens agenesis, cervical vertebral malformation, dog, atlantoaxial instability

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Hemipenectomy due to infected semineal plug and hemipenile necrosis in Leopard gecko

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Abstract

Leopard geckos are the one of the most common species of reptile seen in private practice. Most reptile species like snakes and lizards have a a pair of intromittent organs called hemipenes. Hemipenes is located caudal to the cloaca on both sides of the ventral aspect of the tail. Infection, swelling from sex determination probing, or forced separation during copulation can cause hemipenile prolapsus and if not treated properly can be concluded in hemipenile necrosis. On the other hand most species of lizards like geckos can produce hard waxy plugs of seminal fluid and cellular debris called seminal plugs. Seminal plugs are formed during breeding season and are expelled naturally during defecation. Hypovitaminosis A can cause excessive accumulation of this plugs. Neglection of extraction of this plugs can cause infection and result in hemipenile injury. The treatment of this cases are hemipenectomy and husbandry changes. Three different cases have been presented to our clinic with infected seminal plugs and hemipenes prolapsus. Surgical resection was performed in this species combined with medical therapy. The patients were sedated with Midazolam (1mgkg) and given subcutaneous fluids(%0.9 NaCl and Ringer solutions). Pain management was made by giving Meloxicam (0.5mgkg). The penile tissue was well demarcated in both cases so extraction of the penile was effortless. Seminal plug removal is performed the same as described for the third case. No complication was observed after the surgical treatment of extracted hemipenile tissue since it does not affect excretion of urates because the ureters empty into the cloaca.

Keywords: gecko, seminal plug, hemipenenes, hemipenectomy, necrosis

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Poster

Diabetic cardiomyopathy in cats

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Abstract

Diabetes mellitus (DM) is an important endocrine disorder frequently encountered in humans and animals, which develops due to insulin deficiency or resistance to the effects of insulin, causes disturbances in carbohydrate, fat and protein metabolism, and is characterized by clinical symptoms such as polyuria, polydipsia, polyphagia, weight loss, and fatigue. . In studies conducted on diabetic patients in the field of human medicine, the presence of ventricular dysfunction was found in patients who did not have any coronary artery disease, hypertension or a potential cause to predispose to heart diseases. The disorders caused by DM on the heart are expressed as diabetic cardiomyopathy (DCM). DCM is characterized by diastolic dysfunction, myocardial dilatation and decreased left ventricular function and is one of the important causes of morbidity and mortality in diabetic patients. As a result of this prevalence in human medicine, studies on diabetic cardiomyopathy have been started in veterinary medicine in recent years, and significant and important statistical results have been obtained. The aim of this study is to give information about DCM in cats, to draw attention to this issue that needs to be studied more and added to routine controls in practice.

Keywords: diabetes, heart, veterinary medicine, cardiomyopathy

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Poster

A Case of pseudo flail chest caused by thorax trauma in a cat

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Abstract

The pathological condition that occurs, when at least two of the adjacent ribs are broken in mostly due to blunt traumas, is called "flail chest". The asynchronous movement of the damaged segment during respiration, inward during inspiration and outward during expiration, to the normal chest movement is called "paradoxical movement". Pseudo flail chest is defined as parodoxical movement in the thoracic wall during respiration with or without an accompanying rib fracture with laceration of the intercostal muscles. In this presentation, a case of pseudo flail chest, formed as a result of high rise fall and its treatment results in a cat were presented. The case is a 1.5 years old, intact, crossbred male cat which was referred to the Surgery Clinic of Istanbul University – Cerrahpaşa Faculty of Veterinary Medicine with a history of severe respiratory distress after a high rise fall. Physical examination revealed dyspnea, tachypnea, paradoxical movement at the level of the 7th, 8th and 9th ribs of the left thoracic wall, and subcutaneous crepitation on palpation. With the preliminary diagnosis of flail chest, lateral and ventrodorsal thorax radiographs were taken. It was found that the patient did not have any rib fracture and had subcutaneous emphysema in the ventral sternum. After the initial treatment, he was taken into operation. The lacerations in the costal and intercostal muscles were repaired, and the patient was discharged with non-steroidal anti-inflammatory drugs, antibiotics and oxygen therapy. Although there was no respiratory discomfort, pain was observed in palpation, in the 1st and 3rd weeks postoperative controls, It was observed that all negative findings disappeared completely in the 5th week postoperatively. As a result, the prognosis can be positive with the differential diagnosis of flail chest and pseudo flail chest cases besides good operative planning, and appropriate postoperative pain control.

Keywords: paradoxical respiration, cat, high-rise syndrome

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Poster

Cryotherapy treatment of perianal adenoma in a dog

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Abstract

Cryotherapy, also known as cold therapy, refers to the general or local application of cold for treatment. Cryosurgery, a specific use of cryotherapy, is a treatment method that causes tissue damage by applying a cryogenic substance to abnormal cells and tissues and ensures that they are eliminated. Although there are many different methods in the treatment of tumors, cryosurgery has attracted great interest because it is less traumatic and has a faster healing process. Perianal gland tumors are the most common type of skin tumors, following mammary and mast cell tumors in dogs. The perianal glands are claimed to be accessory sex glands and have an endocrine system as they are small at birth, and grow under the influence of sex hormones throughout life. In this presentation, a case of adenoma and the results of its treatment with cryosurgery in a dog are presented. A Cavalier King Charles breed, 12 years old, intact male dog, which constitutes the case, was brought to Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine, Department of Surgery, with complaints of swelling in the anal region, continuous bleeding and pain during defecation. In the physical examination of the patient, a mass of approximately 3 cm diameter was detected, covering the sphincter ani internus and externus, with ulceration and bleeding due to friction. The cryotherapy option was preferred considering the possible complications such as postoperative fecal incontinence, infection, bad or incomplete cicatrization due to the anatomical location of the mass, Cryotherapy and orchiectomy were performed after sampling from the lesion with punch biopsy. The histopathological examination of the patient, which had an anal adenoma, showed that the lesion was getting smaller day by day and there was no more bleeding in the 7th, 14th and 21st days postoperatively. The patient's relatives stated that, fecal incontinence did not occur and painful defecation ceased. It was concluded that cryotherapy shrinks the tumor without causing fecal incontinence and is beneficial in controlling secondary symptoms such as ulceration and bleeding especially in perianal tumors in contact with the anal sphincter.

Keywords: cryosurgery, perianal gland tumor, dog

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Poster

Nonunion fracture treatment of a toy breed dog with mini ilizarov external fixator

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Abstract

Fractures of antebrachium are common in dogs and cats and usually occur as a result of minimal trauma. The possibility of delayed union and nonunion is seen more in small breeds. Biomechanical and vascular abnormalities can cause delayed union and nonunion. The mini ilizarov external fixator system's recommended because it prevents bending fracture and rotation of stabilized bone fragments while allowing micro-movement of the fracture site around it's axis during weight bearing. In this study, mini ilizarov application and results of non-union antebrachium fracture in a immature dog are presented. The case is 1.5 y old, 3 kg male Chihuahua breed dog which had middle diaphyseal antebrachium fracture. In line with the information given by the owner, osteosynthesis was performed with the intramedullary pin. In the follow-up controls lameness and pain was continuing and nonunion was observed on the radiographs. Reoperation was made with acrylic external fixation technique. The patient was brought to the IUC Veterinary-Faculty-Surgery-Department 4 months later due to its continuing complaints. For the treatment, previously applied external fixator and intramedullary pin were removed. After the mini ilizarov external fixator was configured, it was applied to the area so that 80 mm diameter rings were placed on the proximal and distal fragments of the fracture. A K-wire was used with an addition to the distal ring for increasing the stabilization of the distal fragment. It was observed that the union started at the 3rd month follow-up. At the 6th month follow-up the patient did not show any signs of lameness or pain. It was observed that the non-union in the radius had union with the compression and distraction applications provided by the fixator. As a result, non-union formation in antebrachium fractures, and union can be achieved with the mini ilizarov external fixator system in these patients. This method of treatment represents an effective surgical option for a variety of orthopedic problems in dogs because these systems are versatile and applied in a minimally invasive manner.

Keywords: minimally invasive, external fixator, antebrachium

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Oral presentation

A case of porencephaly and magnetic resonance imaging findings in two domestic short-haired cat

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Abstract

Porencephaly; It is a cyst or cavity in the brain parenchyma, filled with cerebrospinal fluid (CSF), usually associated with the ventricles or subarachnoid space. It is a rare condition in cats and dogs. It occurs as encephaloclastic porencephaly resulting from degeneration of brain tissue due to ischemia, bleeding, infection and trauma in the fetal period or as developmental porencephaly due to neuronal migration disease during the development of cerebral hemispheres. Generalized and focal seizures and loss of vision are the most prominent clinical findings. The most sensitive test for the diagnosis is Magnetic Resonance Imaging (MRI).The cases consisted of 2 cats brought to Istanbul University-Cerrahpasa Veterinary Faculty, Surgery Department Polyclinic with seizure complaints. The first case was a domestic short-haired, female, 1 old cat and the second case was a non-neutered, a domestic short-haired, male, 1 old cat. It was determined that the first case had frequent tonic-clonic seizures and the second case had complex partial seizures. In the neurological examination, loss of vision was detected in the first case. In cranial MRI examinations of cats, in the first case left cerebral hemisphere, associated with the left lateral ventricle, in the second case, the right cerebral hemisphere, associated with the lateral ventricle, hypointense, consistent with CSF in T1-weighted and FLAIR sequences, hyperintense, wide porencephaly consistent with CSF in T2-weighted sequences area detected. Seizures were controlled with orally administered levetiracetam (20 mg/kg at 8 hour intervals). In the following process, it was learned that the cats were sometimes stagnant at home, did not play, did not show interest in their owners, and sometimes did not notice distant objects.In this study, it is aimed to emphasize that partial or generalized seizures in cats may be associated with porencephaly and the essentially to evaluate the hippocampal volume and symmetry, which is reported as the source of seizures, when evaluating typical MRI findings of porencephaly.

Keywords: cat, porencephaly, seizure, mri

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Poster

Surgical and medical treatment of eyelid coloboma in a cat: a case report

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Abstract

Eyelid coloboma is a congenital anomaly of the eyelids that is observed primarily in cats and rarely in dogs.Its clinical appearance can vary from corneal irritation to loss of vision as a result of corneal perforation of large defects.For this reason, cats and dogs born with open eyelids should be evaluated for coloboma.Depending on the degree of the anomaly and the changes in the cornea,it's possible to keep it under control with medical treatment or to treat it with surgical techniques.One of the applied techniques is pedicle grafts. Our case was a 7-month-old, female, shorthaired cat who was referred to the Surgery Clinic of Istanbul University-Cerrahpasa Veterinary Faculty with the complaint of whiteness in the left eye and stinging of the hairs turning into the cornea. In the ophthalmological examination of the patient, anterior synechia and corneal degeneration in the left eye and coloboma in the lower(1/4) and upper eyelids(2/3) and focal corneal vascularization as a result of trichiasis were detected.Although the deficiency in the lower eyelid was not a problem, drying due to the large upper eyelid defect and trichiasis caused the decision to be operated.Topical sodium hyaluronate and ofloxacin eye drops and dexpanthene eye gel were prescribed until the day of the operation.The upper eyelid defect was repaired using the Roberts and Bistner technique.In this technique, the pedicle graft taken from the lower eyelid was rotated and sutured using 3/0 PGA thread to cover the defect in the upper eyelid.The bulbar conjunctiva was fixed under the graft taken.No complications were observed in the 1st week follow-up after the operation.Topical artificial tears, antibiotics and dexpenthanol application're continued for 1.5 months until the upper eyelid became functional.Due to the patient's move to a different city, communication could not be established in the next period. Although eyelid coloboma is frequently encountered in cats, it can result in eye loss due to wrong diagnosis such as entropion and trichiasis.With this report,it's aimed to disseminate clinical practices by emphasizing the importance of correct diagnosis and conscious management of treatment in order to prevent vision loss.

Keywords: cat, eyelid coloboma, roberts and bistner technique

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Poster

Can polymerase chain reaction be an alternative diagnostic method for dermatophytes?

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Abstract

Dermatophytosis are cutaneous mycoses caused by *Microsporum spp.*, *Trichophyton spp.* and *Epidermophyton spp.* dermatophytes. Dermatophytosis is similar to other skin diseases due to its various clinical manifestations and its diagnosis is based on the use of many different methods. Generally used methods are direct microscopic examination and production of samples in appropriate culture medium, but these methods have some disadvantages. Direct microscopic examination requires expertise, and in some cases, microbiologists encounter specimens that are microscopically negative but positive in culture. On the other hand, the sensitivity of fungal cultures may decrease due to the fact that it takes a long time to give accurate results and the contaminant growth is common. Considering these reasons, new Polymerase Chain Reaction based methods have been developed for the diagnosis of dermatophyte agents. Compared to other molecular methods, the PCR method is simple, rapid and applicable for the identification of dermatophyte species that do not show typical morphological features. Although PCR-based diagnostic methods are widely used in the diagnosis of dermatophytosis in humans, its usefulness in dogs and cats has also been confirmed. As a result, the PCR method is used in the diagnosis of dermatophytosis; it's thought to be a method that can be used in the diagnosis of dermatophytosis due to the ease of obtaining the samples, providing faster results than fungal culture and not requiring expertise.

Keywords: dermatophytosis, mycologic culture, PCR, cat, dog

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Poster

Oncolytic virotherapy and the current approaches in veterinary medicine

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Abstract

Cancer has an increasing incidence worldwide in humans and animals. In addition to traditional treatments such as surgery, radiotherapy, and chemotherapy, there is a search for new treatment strategies for cancer treatment. Oncolytic virotherapy arouses great interest in human medicine with the development of biotechnology and increasing knowledge about virus-cell interactions in recent years. Many in-vivo and in-vitro studies have led to the development of a United States Food and Drug Administration (FDA)-approved, genetically modified oncolytic viral therapy. Based on the studies in human medicine, some clinical trials have also been carried out with oncolytic virotherapy in veterinary medicine. But the studies in cats and dogs are very limited. This review aims to compare the development of oncolytic virotherapy in human and veterinary medicine with current studies and to draw attention to the fact that virotherapy can be used as a treatment option for various tumoral diseases in veterinary medicine in the future.

Keywords: oncolytic viruses, virotherapy, veterinary medicine, cancer

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Poster

Alternative clinical approaches to the treatment of pruritis related to canine atopic dermatitis

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Abstract

Canine atopic dermatitis (CAD) is a genetically inheritable, inflammatory and pruritic skin disease with characteristic clinical features, most commonly associated with IgE antibodies to environmental allergens. The most prominent clinical finding is itching. Depending on the allergens involved, seasonal or non-seasonal pruritus may occur. The face, inner part of the auricle, abdomen, inguinal region, perineal area and distal extremities are the most affected areas in atopic dermatitis. The main therapeutic goal when treating CAD is to stop itching quickly and safely to minimize skin damage and improve the patient's quality of life. In the first active phase of pruritis treatment, which consists of two stages, acute exacerbations should be controlled by using drugs with active ingredients such as corticosteroids, oclacitinib, lokivetmab. In the proactive pruritis treatment, it is aimed to prevent exacerbations and prolong the pruritus-free period with maintenance treatment. For this purpose, in addition to the drugs used in active treatment, different treatment options such as cyclosporine, tacrolimus, antihistamines, essential fatty acids, Palmitoylethanolamide (PEA), topical drugs and shampoos that help repair the skin barrier are used. Due to the side effects and costs of the drugs used in the treatment of pruritis in atopic dermatitis, research on alternative treatment methods continues. Applications such as mesenchymal stem cell therapy, recombinant canine gamma-interferon, luteolin, lactoferricin/verbascoside and vaccination against IL31 are among the alternative treatment methods for atopic dermatitis in dogs. However, more studies are needed before they can be included in our routine practices and added to the guidelines. In this review, it is aimed to transfer new treatments used for itching in atopic dermatitis to veterinary clinical practice and to encourage their routine use.

Keywords: canine atopic dermatitis (CAD), pruritus, alternative therapy, dog

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Poster

A case of cutaneous mast cell tumor in a dog

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Abstract

Cutaneous mast cell tumors comprise approximately 20% of cutaneous tumors in dogs. It is commonly seen as solitary nodules on the skin. A 14-year-old, male, labrador crossbreed dog was brought to the Istanbul University-Cerrahpaşa Veterinary Faculty internal medicine policlinic due to the formation of generalized nodules that started on the right hind leg and spread to the head, abdomen, scrotum and lateral thorax within a month. On physical examination, body temperature was 39,1°C, swelling in the submandibular lymph nodes, and widespread erythematous and nodular structures on the skin were observed. Hemogram and serum biochemistry analyzes were within normal ranges. Biopsies were taken from 0,5 – 0,6 cm diameter nodules in order to reach a definitive diagnosis of the patient who had not received any treatment before. Neoplastic mast cell accumulations with rounded morphology were observed in the dermis. Masitinib 12,5 mg/kg/day, PO (Masivet®) was administered to the patient who was diagnosed with Stage 2 cutaneous mast cell tumor according to Patnaik grading system. After 17 days of treatment, the patient showed significant clinical improvement. The disease relapsed after a 1-month break from the treatment. 15 mg/kg/day PO, Mastinib together with 1 mg/kg methylprednisolone (Prednol®) 1mg/kg PO were administered, but no regression was observed in the nodules. Due to severe lethargy, vomiting, anorexia, and spread of the masses, the patient was euthanized with the request of the owner. In our opinion, cutaneous mast cell tumors should be considered by clinician veterinarians in the evaluation of nodular skin diseases.

Keywords: Mast cell, tumour, dog, masitinib

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