

**MEDICAL VETERINARY SCIENTIFIC RESEARCH
OBJECTIVES IN EU INTEGRATION CONDITIONS**

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The paper present medical veterinary scientific research objectives in EU integration conditions

Key words: EU integration, veterinary scientific research objectives

BIRD SCHISTOSOMES – LIFE CYCLES AND MIGRATION IN BIRDS AND MAMMALS

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Cercarial dermatitis categorized as an emerging disease (De Gentile et al. 1996) is a well known skin hypersensitive reaction caused by larvae (cercariae) of schistosome s. In Europe, bird schistosomes in general and the genus *Trichobilharzia* in particular are the usual causative agents of dermatitis.

Although humans do not belong to suitable hosts and the parasites die in human bodies (there is no patent period of infection), the dermatitis itself may represent a serious economical problem in recreational areas.

OCCURRENCE AND SPECIES SPECTRUM OF BIRD SCHISTOSOMES IN EUROPE

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The paper present a review on occurrence and species spectrum of bird schistosomes in Europe
Key words: bird schistosomes, occurrence

THE INCIDENCE OF SKIN DISORDERS IN SMALL ANIMALS STANDED FOR EXAMINATION IN THE PARASITICAL DI SEASES CLINIC OF FVM TIMISOARA BETWEEN 2000 AND 2005

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Skin is the largest organ of the body and it is connected with other organs. That's why the skin reflects the healthy status of the body.

This paper reviews the main skin disorders in dogs and cats examined in the Parasitical Diseases Clinic of Faculty of Veterinary Medicine Timisoara. Between 2000 and 2005, 501 dogs and 99 cats were examined. The main skin diseases found in dogs were: demodicosis (23.35%), dermatomycosis (19.97%) and atopic dermatitis/flea bite hypersensitivity (16.77%), and the rarest disorders were: metabolic diseases (0.39%), epidermal dysplasia (0.39%) and uveo-dermatological syndrome (0.2%). In cats, the most frequent skin diseases were: scabies (28.28%), followed by dermatomycoses (22.22%), and psychogenic dermatitis and indolent ulcer (1.01%) were the rarest, respectively.

THE EFFICACY OF ANTIMICOTIC VACCINE IN CATS

EFICIEN A UNUI VACCIN ANTIMICOTIC LA PISICI

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The prophylactic efficacy of the Biocan M vaccine was tested in cat's microsporosis. Nine cats have been divided in three groups. The first group has been vaccinated with Biocan M (Bioveta), the second group has been immunological suppressed with dexamethasone, while the third represented the control group. All nine cats have been experimentally infected with *Microsporium canis*.

Although the Biocan M vaccine does not prevent the infection with *M. canis*, it accelerates the healing process of the lesions and cultural negativity, after two vaccinations 15 days apart.

In the case of infection with *M. canis*, therapeutically immunosuppressant worsens the lesions and stops the healing process.

Key words: antimicotic vaccine in cats

HUMAN CHORIORETINITIS WITH *TOXOPLASMA GONDII* – A CASE REPORT

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Following the ophthalmologic exam, the specialist established the diagnosis of scar of chorioretinitis, accompanied by horizontal nistagmus, partial optic atrophy and hypermetropey of a nine aged boy with diminished eye vision complaint. We have detected by serological tests (determination of serum levels of IgG and IgM for *Toxoplasma*) the presence of chronic chronic toxoplasmosis in a nine year aged boy. Patient's mother had also a high serum level of IgG (6.1 IU/ml, with 1.1 IU/ml over the normal limit), whereas the level of IgM was normal. The toxoplasmosic chorioretinitis diagnosed in a patient of nine years is the result of animal origin infection with *Toxoplasma gondii* and, highly improbable, of transplacental infection.

VASCULAR EXAMINATION OF THE PLACENTA IN HUMAN CASES OF TOXOPLASMOSIS

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We investigated the morphologically distinct forms of inflammatory infiltration of the 16 human placenta and blood vessel, both histologically and immunohistologically. Histological reaction was performed with HE stain and Gordon-Sweet silver impregnation. Immunohistochemical reaction with anti CD34, CD31 and anti Willebrand. Chronic chorioamnionitis is commonly associated with villitis and has accompanied *Toxoplasma gondii*, but a specific infectious etiology is not identified in many cases. Only histologically demonstration of tachyzoites in tissue sections or smears of body fluids indicate the toxoplasmic etiology of the villitis.

THE HELMINTHFAUNA OF DOMESTIC FOWLS GROWTH IN THE TRADITIONAL SYSTEM IN OLT AND DOLJ COUNTIES DURING 2002 – 2005

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From October 2002 to Mai 2005, 193 domestic poultry were examined for the presence of gastrointestinal and respiratory helminths. The study included 105 domestic chickens, 33 turkeys, 27 geese, 25 ducks and 3 guinea fowls. Chicken growth under traditional system are frequently parasited by *Ascaridia galli*, *Heterakis gallinae*, *Capillaria sp.*, *Raillietina sp.*, *Choanotaenia infundibulum* and in smaller percentage, by *Syngamus trachea*, *Gongylonema ingluvicola* and *Chelospirura hamulosa*. Turkeys are infested with *Ascaridia galli*, *Capillaria sp.*, *Heterakis gallinae*, *Syngamus trachea*, *Gongylonema ingluvicola*. Geese are infested with *Amidostomum anseris*, *Drepanidotaenia lanceolata* and *Heterakis dispar*. *Ascaridia galli* was the most frequently met species along the whole study.

Domestic poultry growth in a free range – traditionally, due to the ways of breeding, are mostly parasited by many of helminths simultaneously (polyparasitism).

Key words: helminthfauna, domestic fowls traditional system

GENUS *MALASSEZIA* YEASTS: ASPECTS REGARDING CULTIVATION AND EPIDEMIOLOGY

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Genus *Malassezia* is part of *Deuteromycetes* class, *Cryptococcaceae* family and comprises eleven species of lipodependent fungi (*furfur*, *obtusa*, *globosa*, *floofiae*) and *Malassezia pachydermatis* (*Pityrosporum canis*) which is lipophilic but not lipodependent. The aim of this study was to compare different culture media, in order to find one that comprises all the respiratory, energetical and nutritive requires for *Malassezia*, and to perform an epidemiology study regarding *Malassezia* genus fungi. The investigations took place during september 2005 and january 2006 within the Microbiology Laboratory of Veterinary Medicine Faculty, Cluj-Napoca. The percentage of the isolation is of 42,85% (12 cases of 28), which recommends Dixon agar in *Malassezia* genus isolation compared to the other media. This study proves the commensally character of *Malassezia* genus fungi, from 12 dogs with no dermatitis or otitis, 7(58,33) being positive to the cultural exam. There is no sex, age, or breed predilection, but some of the breeds are most frequently affected: crossbreed, german shepard. Dogs with pendulous ears are most affected compared to dogs with erect ears, the isolation being successful in 8 cases of 17 dogs with pendulous ears. The colonies developed on Dixon agar have a total different aspect compared with the one developed on other media (nutritive agar, glucose agar and blood agar).

Key words: *Malassezia* yeasts, cultivation, epidemiology

***EUSTRONGYLIDES* INFECTION IN REPTILES. A REVIEW OF LITERATURE
WITH NEW HOST AND GEOGRAPHICAL RECORDS**

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Our paper is intended to offer complete data about infection with larvae of *Eustrongylides* in reptiles with records of the parasite in new host and geographical area.

THE EPIDEMIOLOGICAL STUDY OF STRONGYLIDOSIS FROM BECLEAN STUD

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The researches done in Beclean Stud. from from October 2004 until December 2005 revealed that the medium EXT of the strongyles parasitism was between 45 -100% for McMaster method and between 65-100% for Stoll modifies method. INT The dynamic of infestation intensivity through McMaster method, the medium number of the eggs was 1417.40 EPG (eggs per gram) and through faecal-culture of 2048.33 LPG (larva per gram). Through McMaster method the INT was maximum (3609 EPG) in October 2004 and minimum (195 EPG) in December 2004 and through faecal -culture was maximum (5821 LPG) in April and minimum (562 LPG) in November 2004.

Key words: epidemiological study, strongylidosis, stud

MODELS OF GRAM NEGATIVE SEPSIS

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The aim of our research was that during the experimental model of sepsis, we induce apoptosis of parenchymal cells and identify it by measuring relative mass of the examined organs. The experiment was carried out on 48 male rats of Wista strain. The model of sepsis was caused by caecal ligation and punctation with clean culture of bacteria *Escherichia coli*. In order to follow the development of sepsis, time for observing the animals were hours 12, 24, 72 and 120 after surgical intervention. At these terms the animals were sacrificed and the following organs were taken out: heart, liver, spleen, lungs, kidneys, thymus and intestine. All the organs were cleaned and measured.

Relative mass of spleen in septic rats in the hours 72 and 120 was considerably above the control findings. A significant loss of relative mass of liver (hour 12), lungs (hour 12 and 24) and kidney (hour 24) was detected.

According to data in the literature about the recent research of sepsis model on animal, changes in relative mass of the observed organs in our experiment may be ascribed to apoptosis of parenchymal cells, what is a consequence of uncontrolled secretion of pro-inflammatory cytokine.

THE EVOLUTION OF HUMORAL IMMUNE EFFECTORS IN BROILERS VACCINATED WITH Nobillis® COX ATM (INTERVET, Netherland)

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The immune response in coccidiosis is complex and can be involved different effectors mechanisms. It depends on eimerian specie, life cycle stage and also nutritional status and genetic fond of the host. An important role in local immune defense has gut associated lymphoid tissue. The purpose of this study was to evaluate, before and after the vaccination with a live vaccine of a chicken population, the plasmatic lysozyme level, the total serum immunoglobulin and the se rum immune complexes. Researches, concerning the evaluation of some serum immune effectors produced by a vaccination with the Nobillis COX ATM (INTERVET, Netherland), performed in the Parasitology and Parasitic Diseases Laboratory and also in the Microbiology and Immunology Department from the Faculty of Veterinary Medicine, Cluj Napoca, during October – December 2004 and using a 100 broiler chicken experimental group, have the following conclusions: on day 0 the serum lysozyme level had an approximately equal values in the experimental groups (11,21 – 11,38 µg/ml), the highest level (11,48 µg/ml) was recorded on day 14 p.i. at group III (vaccinated and infected with 2500 oocysts), compared with a 10,53 µg/ml value from the group I (unvaccinated and infecte d); the total immunoglobulin serum level in group I (positive control) decrease from 46 Vernes grades (day 0) to 41,85 Vernes grades (day 14 p.i.); in the vaccinated groups this values increased on day 7 -14 p.i. until 49,85 and 52,14 Vernes grades; the higher level of the immune complexes was noted on day 14 p.i. at the group IV (vaccinated/uninfected) (0,06 ODU), followed by the group III (vaccinated/infected with 2500 oochysts) and the group I (positive control) (0,05 UDO); the lowest value was noted in g roup II (vaccinated/infected with 5000 oochysts) (0,03 UDO).

Key words: humoral immune effectors, broilers, Nobillis® COX ATM

THE EVOLUTION OF RABIES IN ROMANIA

EVOLU IA TURB RII ÎN ROMÂNIA

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In the paper are presented the rabies evolution in Romania between 2000 and 2004. The number of the rabies cases was increased year by year in the first part of this interval. The greatest number of the rabies cases was in wild animals. This situation is comparable with the evolution of the rabies in Europe.

**BEL EVOLUTION IN VILLAGE MORAVITA, TIMIS COUNTY,
BETWEEN 2000 AND 2005**

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In the paper are presented the BEL evolution in Moravita village, Timis county between 2000 and 2005.

BEL was diagnosis in Moravita village for the first time in 2002 in two villages, then in another two villages in 2003. The infectious percent was increased from 2.3 at 7.8 between 2002 and 2004.

Even the infectious percent was decreased in 2005, the BEL problem will remain in the future because the control measures were not efficiently.

BACTERIAL RESISTANCE AT ANTIMICROBIALS USED IN BROILERS FARMS

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The present paper's purpose is to monitor the sensibility at antimicrobials in some E. coli isolates from broilers, an important stage for judicious use of antibiotics in broilers to avoid antimicrobial resistance.

From numerous antimicrobial tested substances the Florfenicolul, an antibiotic recent introduced in therapy was prove to be very efficacy in a lot o situation.

Key words: bacterial resistance, antimicrobials, broilers

PLANTAMUN® IMMUNOMODULATOR INFLUENCE UPON SOME HAEMATOLOGICAL AND SEROLOGICAL PARAMETERS IN RABBIT

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The purpose of this paperwork was to assess PlantaMun® immunomodulator influence upon both leukocitary dynamics and antibody titres. The research was carried out on 8 rabbits, distributed into 2 groups: experimental (n=5) and control group (n=3). The results were statistically processed and the differences' statistical signification was assessed through t test.

The experimental group were stimulated, at spels of two days, by 1 ml of PlantaMun, parenterally administered.

Both groups were innoculated two times, at 14 days distance, with La Sota v irus strain. Blood samples were taken from each rabbit, at the beginning of the experiment, and 14 days after each vaccination.

The outcome was that PlantaMun® has enriched the adaptative immune response, antibody titre being significantly higher ($p < 0.05$) in the experimental group, compared to the control group, after the first and also after the second antigenic stimuli.

Regarding the leukocitary dynamics, in the case of the experimental group, we recorded a distinct significant increase ($p < 0,01$) of the heterophil percent in R2, in comparition with R1. This stimulating effect occurred to the all other leukocyte detriment, and it didn't persist after a long administration of PlantaMun®.

Key words: plantamun® immunomodulator, rabbit

CHANGES IN THE IMMUNOLOGICAL PROFILES OF ANGORA GOATS DURING THE ADAPTATION PROCESS

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The cell-mediated non-specific response under the influence of adaptation stress to a new environment was monitored in 15 intensively bred, adult female Angora goats, placed in an urban area (n=15), on small households, by measurement of total leukocyte numbers and phagocytosis.

The total leukocyte numbers non-significantly increased from $8,844.04 \pm 3,424.46$ to $9,256.00 \pm 3,593.11/\text{mm}^3$ by the end of the period.

There was a non-significant decrease in the phagocytic activity towards the end of the period in the rural area group (1.14 ± 0.39 ODU to 1.23 ± 0.28 ODU) compared to that of the urban area group (1.84 ± 0.35 ODU to 1.235 ± 0.325 ODU).

There was a very wide distribution of the calculated values in this test.

According to this data, the adaptation process to a new climate and type of exploitation, monitored by the innate cellular immune parameters, has not been accomplished in two years.

Key words: immunological profiles, angora goats, adaptation process

LABORATORY DIAGNOSIS OF BOVINE TUBERCULOSIS IN VETERINARY LABORATORY TIMIȘOARA DURING 1993-2005

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This paper presents the results of the laboratory studies carried out in order to diagnose tuberculosis in cattle within Timișoara county, during 1993-2005.

Bovine tuberculosis in Timișoara county, during 1993-2005, was diagnosed in the annually Veterinary Laboratory, excepting 2001. But the number of the diagnosed cases has decreased significantly, from 103 cases confirmed in 1995, to 1-3 cases per year, during 1997-2005, as a result of the fighting activities performed during this period. These data are correlated with a decrease of samples sent to laboratory for a confirmation of diagnosis. Pulmonary tuberculosis was heavily diagnosed (98%), and serous tuberculosis only in a proportion of 2%. We didn't diagnose tuberculosis with other locations.

Key words: laboratory diagnosis, bovine tuberculosis

CANINE BLOOD TYPES AND THEIR TRANSFUSION COMPATIBILITY **OGNEAN*, L., CRISTINA CERNEA*, C. MURE AN*, RAMONA PU CA ***

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Summary: C

The researches on canine blood types and their transfusion compatibility were done in the department of Physiology from faculty of Veterinary Medicine Cluj Napoca in collaboration with SIGHETA Animal Pharmaceutical Inc. The results have a practical importance. Adoption of the SHIGETA antigenic system in canine (n=129) blood type identification and classification revealed the clear agglutination reaction intensity differences, confirming the absolute value of the blood type method which is the base of this new antigenic system; In the tested canine blood phenotype frequency evolution, the major weight returned to the 1.1B (45,73%) blood type, followed by the 1(-)B (24,80%) blood type and 1.2B (22,48%) blood type; the association between the A and B antigens had a very low frequency, represented by the blood types 1.1AB (6,20%) and 1.2AB (0,77%); The correlation between the blood type frequency and the breed revealed the domination of the same blood types in breeds such as German Shepard and English Bulldog: 1(-)B (50%) followed by 1.1B (41,67%) and 1.2B (8,3%) blood types; respective 1(-)B (46,15%) followed by 1.2B (41,67%) and 1.1B (15,38%) blood types; The majority of breeds investigated had the dominant blood type 1.1B with the following distributions: 100% for the Asian Shepard, 77,78% for Rottweiler, 70% for Romanian Shepard and 43% for half-breed dogs; In Rottweiler breed and in half-breed dogs was also signaled the 1(-)AB blood type in a proportion of 11,11% respectively 6,25%; In "other breed" category (n=23), the 1.1B and 1.2B blood types had an equal representation (32,43%), and the proportion of the 1(-)B and 1.1AB blood types was also identical (16,21%), at the same time the 1.2AB (2,70%) blood type was signaled; The German Shepard breed can be considerate an important source of potential donor because of its high number of individuals 1(-)B positive (50%), blood type associated with the highest level of compatibility, based also on the large number of dogs DEA 1 negative found in its composition. The preliminary obtained data reveal the B antigen domination in the antigenic structure of the tested canine population, in which the blood type with A antigen without the B antigen have not been yet identified;

Key words: canine blood types, transfusion compatibility

CONTRIBUTIONS TO THE IMPROVEMENT OF SOME SURGICAL TECHNIQUES ON THE GENITAL AND URINARY SYSTEM IN CATS

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The purpose of this paper was to improve of some surgical techniques on the genital and urinary system in cats, to reduce surgical trauma following ovariectomy, to evaluate orchidectomy by single or double incision with hemostasis by ligatures on both testicular cords by knotting the 2 cords or by knotting the vascular cord with the spermatic one and to evaluate urethrostomy in cats with urolithiasis.

The study made on 239 females and 122 males in which for contraceptive and therapeutic reasons ovariectomies, ovariohysterectomies, orchidectomies and urethrostomies were performed concluded:

Ovariectomy in cats with externalizing the ovary is performed with 1,5 -2 cm celiotomy, thus reducing surgical trauma and time; hemostasis by single ligature is efficient, quick and suitable especially in young cats.

In ovariohysterectomy, to reduce celiotomy to the minimum in the case of non -pregnant cats and hemorrhages in cats with advanced pregnancy, it is recommended that the surgery is begun at the ovaries, continuing with the uterus.

Of the 4 methods of orchidectomy, the open one with single incision medially on the scrotum and hemostasis by ligature on the cord is the best choice.

The succes of perineal urethrostomy is insured by an efficient fixation of the urethro - penian stump to the gracilis muscle, a larger incision and the protection of the wound until complete healing.

Key words: surgical techniques, genital and urinary system, cats

**RADIOGRAPHIC DIAGNOSIS OF DIAPHRAGMATIC HERNIA
IN DOGS**

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Summary

Diaphragmatic hernia is mainly by trauma such as an automobile accident. In this study it was analysed and described the classical radiographic signs which allow the diaphragmatic hernia suspicion. In this study, 16 clinical cases of diaphragmatic hernia were radiologically examined and categorized by their radiographic features. Additionally, several new radiographic signs have been included in our radiographic observation list for diaphragmatic hernia .

**INFRASPINATUS MUSCLE CONTRACTURE TREATMENT IN DOGS
– five case report -**

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Summary

Infraspinatus muscle contracture is present, with reduced frequency, on hunting dogs and utility breeds with hiperactive behaviour. In this paper are described the clinical signs which are characteristic for this affection, diagnosis and treatment possibilities. Humeral insertion tenotomy of infraspinatus muscle represents a succesfull therapeutical solution, that allow a fast resumption of activity.

Key words: infraspinatus muscle contracture, dogs

**ESTRUS CONTROL USING SYNTHETIC PGF2ALPHA ANALOGUE IN
ROMANIAN BLACK SPOTTED DAIRY COWS**

**INFLUENŢA FUNCŢIEI DE REPRODUCŢIE CU AJUTORUL UNUI ANALOG
SINTETIC AL PGF2ALFA LA VACILE DIN RASA B L A T CU NEGRU
ROMÂNEASC**

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In the last decades it was reported a decrease in reproductive performances. Even the puerperium represents the necessary period for organism to balance the stress generated by milk production and to ensure the conditions for a new pregnancy, in the same time is the window allowing reproductive control.

In this work were considered three groups of 20 cows each, belonging to Romanian Black Spotted Dairy Cow, having an medium milk yield, normal parturition and being at the second or third lactation, as follows: control (M), D and P. Those in M group were observed for estrus detection beginig with 35 post partum days and inseminated at observed estrus, according to AM/PM rule. The cows in other gorups received two dosis of luprostiol (Prosolvin, Intervet) with first shot administered between 35 and 42 post partum days. Cows in D group were inseminated at observed estrus, while cows in P gorup, at 80 hours subsequent second PGF . Progesterone was assayed using ELISA, from blod sampled at 5 and 11 days following insemination. Using PGF2alpha generated be tter reproductive parameters (D group compared to M and P groups), regarding fertility (45% versus 35%), insemination index (1,75 versus 2,15) and calving to conception interval (72,45 days versus 86,45 for M group and 79,45 days for P group). Serum proges terone did not ranged significantly between pregnant or empty cows, irrelevant to PGF administration schedule.

Key words: PGF2alpha, progesterone, reproductive performance

UROGENITAL INFECTED BULLS, ITS SEMEN DOSES AND CATTLE FERTILITY IN A.I. PROGRAME

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SVC - KRNJA A - BEOGRAD¹⁻³; NIVS - BEOGRAD²; FVM - BEOGRAD⁴ - SRBIJA.

The accessory sex organs and testes of the bulls play an important role in cattle reproduction. Accessory male sex organs can be affected with urogenital infections during their reproductive period because these organs (accessory glands) secrete specific components of seminal plasma (fig.1). And therefore urogenital infection can turn off the secretions of the accessory sex male organs, seminal vesicle especially.

The infection of accessory sex organs arises ascendently and/or descendently which depend upon the hygienic care of the breeding bulls.

So hygiene of the A.I. breeding bulls may seriously influence their semen quality and the cattle fertility in a whole, (Predojevi ,2006). Diagnose of the bull's urogenital infection could be confirmed by : a – clinically (fig.2) ; b - palpation per rectum of infected bulls (accessory organs, vesica seminalis); c - the complement fixation test of serum and d - microscopic examinations of the infected bull sperm.

CUTANEOUS BASOPHIL HYPERSENSITIVITY REACTION TO PHYTOHEMAGGLUTININ IN HAIFERS AND COWS WITH DIFFERENT REPRODUCTIVE RESULTS

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We investigated the general immune reactivity, as estimated by the cutaneous basophile hypersensitivity reaction (CBHR) to phytohemagglutinin (PHA) in cows with different reproductive results. The hypersensitivity test was performed on the day of artificial insemination and animals were divided into groups according to the total number of inseminations, number of inseminations per calving, number of inseminations during last lactation and their age. Our results indicate that the intensity of CBHR is lowest in cows inseminated once or twice and in younger animals, while, there were no differences between the groups when they were formed according to the number of inseminations per calving. Also, the intensity of CBHR was higher in older animals.

Key words: *PHA, cows, subfertility*

RESEARCHES CONCERNING THE COLLECTION, EVALUATION AND CRYOPRESERVATION OF THE CARPATHIAN WOLF SEMEN

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The purposes of the study were: to assay the efficiency of electroejaculation in wolves, the macroscopic and microscopic evaluations of the wolf semen, collected for cryopreservation, evaluations done in the key-moments of the technique; to assess the viability and the morphological characteristics of the sperm cells by using two different stains: the eosin stain and the Spermac[®] (MiniTüb[™]) stain, before and after cryopreservation. The electroejaculation was succeseful in all cases, therefore we recommend it for the atempts of semen collection in wolves; The motility and the viability of the sperm cells where not correlated, due to the subjectivism in motility evaluation as well as due to the unstaining of living low motility sperm cells; After the defreezing, the motility of the semen varied widely (0% -60%), depending on the wolf and on the ejaculate. The viability of the semen, after the defreezing, varied widel y (0-68%), as well, depending on the wolf and on the ejaculate. The abnormalities, especially the primary ones, were more obvious on the Spermac[®] stained smears, while the eosin stain may highlight some abnormalities, especially secondary

Key words: cryopreservation semen, Carpathian wolf

CLINICAL ASPECTS IN EOSINOPHILIC KERATITIS IN CAT

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In this papaers the autors present few cases of eosinophilic keratitis in catand thier the the treament and evolution. The eosinophilic keratitis and conjunctivitis are unique sindromes founds in cat; the cause is unknown, there is an association with feline herpesvirus inf ection. The typical clinical presentation of cats with eosinophilic keratitis is a proliferative white plaque affecting a variable portion. The earlier diagnosis is very important, the treatment in this case is imunosuppressive therapy; in traumatic erosiv ulcerative keratitis, the treatment with corticosteroids is contraindicated.

Key words: **eosinophilic keratitis, cat**

MANAGEMENT OF REPRODUCTION IN COWS. CORRELATIONS BETWEEN SERUM LEVELS OF PROGESTERONE AND REPRODUCTION PERFORMANCES

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Summary

The aim of this study is the following of the progesterone levels in the puerperal period in dairy cows from Romanian Spotted Dairy cows (BR) and to establish correlation between the serum of these hormone and the reproductive indicators. The reproduction management is implying the elaboration and application of a working plan which has as target the obtaining of one, calf per, year from every cow; The increasing milk production, from the last decades, is associated with the grow of the interval of time until the first oestrus and with the lowering of the amplitude of the oestrus manifestation, mostly at the first oestrus post partum; The progesterone levels registered during the sexual cycle can be an important help in finding the optimal moment for insemination.

Key words. management, reproduction, cows, progesterone

CORRELATIONS BETWEEN SERUM LEVELS OF THYROID HORMONES AND MILK PRODUCTION

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The aim of this work is to establish the correlation between the serum levels of thyroidal hormones and the milk production, on Romanian Spotted dairy cows. The study was made in July - November 2005, in the Lovrin Farm, on Romanian Spotted Dairy Cow (BR). In the study were included cows and primiparous, without history of gynaecological – obstetrical problems. The females were divided in two lots: first lot (L1), including 10 cows with medium production (between 3431 and 5200 litre per lactation) and lot 2 (L2) including 10 cows with high milk production between 5400 and 7015 litre per lactation. Triiodothyronine represent a powerful regulator of energetic and protean metabolism, the postpartum values of this hormone are strongly correlated with the milk production.

Values T3, and less T4, registered in the puerperal period, could offer information regarding the milk production on cows. Between the milk production and the postpartum reproductive activity there is an antagonist correlation.

Key words: thyroid hormones, milk production

METHODS OF DIAGNOSIS AND TREATMENT OF PYOMETRA IN CATS

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Summary

The initial challenge during examination of reproductive organs is to distinguish tissue changes associated with stages of the estrous cycle from real lesions (8, 10). One of the uterine diseases of the cat involves hyperplastic conditions of the endometrium. These are followed by degenerative changes within these tissues (cystic distension of glands, fibrosis) to provide opportune conditions for establishment of uterine infections (11). Pyometra has been referred to as a hormonally mediated diestrual disorder. Current dogma is that the pathogenesis of pyometra initially involves hyperplastic changes within the endometrium followed by bacterial infection. It is inferred that infection is established mostly due to the excessive amounts of secretory fluids that have accumulated in its lumen. This association is reflected in naming of the condition "Cystic Endometrium -Pyometra Complex".

RESEARCH REGARDING THE IMPROVEMENT OF REPRODUCTION IN A PIG FARM USING BIOTECHNOLOGICAL METHODS IN ORDER TO INCREASE THE ECONOMICAL PARAMETERS

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The profitability of pigs breeding is highly dependable of reproduction performances. In a farm with reproduction sows, the main goal is to wean as many as possible piglets from a sow in one year and to obtain high quality piglets with minimal outlay. The purpose of this experiment is to improve the economical parameters recorded in a pig breeding farm, which record important financial losses because of a faulty reproduction management system. The hormonal treatment with PMSG and HCG, applied to a batch of sows with unclear situation, had the expected results. Because of the introduction of all sows in the reproductive circuit, the increase of the number of piglets obtained from a sow, the reforming of boars and the quantitatively and qualitative correction of fodder, have been obtained benefits which excel the investment.. Estrus synchronization and artificial insemination are biotechnics methods which applied in sows breeding assure performances in reproduction, genetic progress and economical success.

Key words: pig reproduction, biotechnological methods, economical parameters

BIOSECURITY AND ANIMAL HEALTH IN ORGANIC LIVESTOCK FARMING

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Keywords: biosecurity, organic farming, animal health and welfare

Organic agriculture is already a new approach and a new alternative for conventional agriculture. Biosecurity measures for this kind of organic livestock farms are crucial, and supplementary biosecurity measures have been established.

Specific veterinary surveillance measures have been defined and inserted in our "National strategic programme for surveillance, prevention and control of transmissible diseases in animals".

The objective of this paper is to evaluate the biosecurity measures applied by organic livestock farms, their implications for health and welfare of bovine and sheep reared in these kinds of holdings, and to develop proposals for a more clearly defined framework for the national legislation at farm level.

This is the first assessment of biosecurity measures and epidemiological risks for bovine and ovine organic livestock farming in Romania, which will be used for developing new rules, with the aim to ensure animal health and welfare.

In order to evaluate the situation concerning the existence and observance of biosecurity measures for organic livestock farms, an assessment file was performed and sent by National Sanitary Veterinary and Food Safety Authority to the 42 county sanitary veterinary and food safety directorates, in order to inspect them and fill in these assessment file.

The evaluation of bovine and ovine organic farms in relation with biosecurity measures applied, revealed that most of this organic farms have a good emplacement in the territory, ensuring a good antiepidemic protection, correlated with the periodical appliance of compulsory disinfection, flies and rodent control measures.

It has been also noticed that there are some non-correlations, at national level, between the authorities heaving the responsibilities in control and those for guidance activities.

While the national legislation in accordance with the EU Regulation (EC) 1804/1999 imposes some restrictions regarding allopathic treatments, veterinary faculties don't ensure yet a correspondent preparedness of the students, in order to successfully apply the new alternative methods (phyto-therapeutic and homeopathic treatments) with the same efficiency as conventional methods.

The status of biological control of some vectors (flies and mosquitoes) and immunological products, including those obtained by biotechnology techniques, has not yet been considered.

The information obtained by answers filled in the questionnaires indicates that, within current standards, the incidence of diseases in organic livestock farms is generally at acceptable levels, better than in conventional farms. It could be as a result of a good welfare and the positive role of management and husbandry in disease prevention, including the benefits of reduced stocking densities.

INFLUENCE OF HIGH TEMPERATURE IN PIGS FATTENING

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SUMMARY

The high temperature on pig productivities performance was studied in a room with controlled environmental conditions on 100 Large White × Landrace assigned to 4 randomised groups (E1 to E4). The pigs in E1 and E2 were exposed to constant 30 °C±1 °C, while the pigs in groups E3 and E4 were exposed to alternative temperatures of 35 °C during daytime and 25 °C during the night. The experimental diets were isocaloric (Table 1). The diets for groups 1 and 3 had energy, crude protein and amino acid levels according to the norms (Petromanișcol, 2002). The diets for groups 2 and 4 had 22% more crude protein and amino acid levels than the norm. The feed intake was not influenced by the high temperature regime and protein levels.

Key words: High temperature, pigs fattening

PAIN ASSESSMENT IN OVARIOHYSTERECTOMIZED BITCHES BY USING THE GLASGOW COMPOSITE PAIN SCALE

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The present study explores the possibility of using the short form of the Glasgow Composite Pain Scale in order to assess the need of postoperative analgesia in bitches subjected to routine ovariohysterectomy under injectable anesthesia using xylazine, diazepam and ketamine. The subjects of the study were 12 healthy female dogs aged between 8 months and 4 years. Six bitches were administered metamizol preoperatively, while the others constituted the control group. The pain assessments were made 2, 4, 8, 24 and 32 hours postoperatively. The mean pain scores were similar for the two groups 2 and 4 hours postoperatively. The mean pain scores of the treatment group were lower 8, 24 and 32 hours postoperatively. The pain scores were lower 24 hours postoperatively than 32 hours postoperatively for all dogs from each group. As the behavioural indicators of pain in dogs may be very much influenced by dogs' socialization, by their previous experience and by the sensations of stress and fear, thorough pain assessments should take all these factors into account.

Key words : *bitch, pain assessment, analgesia*

ASSESSMENT OFF WELFARE AND PROTECTION OF LAYING HENS

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The present study presents the researches done on the evaluation of hen's welfare and protection using an official numeric method and establish of some correlation between the degree of welfare, the production and mortality levels. The evaluation was done in five farms from Timis County during six months. Were monitories the egg production and the mortality were realized in comparison with the standards of the hybrids. The nonconformity between the results obtained on welfare evaluation, the mortality and eggs production was related with the moment of evaluation and some deficiency of the inspection card.

Key words: assessment, welfare, protection, laying hens

THE ECONOMIC IMPACT IN ANIMAL HEALTH AND VETERINARY DECISIONS

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In this paper we present the difficulties encountered in order to assure the collection, validation and dissemination of data regarding the disease evolution in animals, on their territory, as well as the financial, technical and human difficulties that need to be overcome in order to assure the control of the disease.

It cannot be considered as a sufficient guarantee for importers only the sanitary documentation issued by nations that have organized veterinary services, participating in the periodical evaluations organized by the international for a.

Actually, it took more time to do this ambitious world sanitary police project than predicted. This action is not completed not even now, in spite of the creation after the World War II of two organizations of the United Nations specialized in the human health (World Health Organization - WHO) and food and agriculture (Food and Agriculture Organization - FAO). These two organizations as well as other numerous regional organizations established in Africa, America, Asia or Europe bring their contribution to the improvement of the monitoring and control of the animal disease and zoonoses at world level, but without completely achieving the goals of this ambitious project.

Key words: economic impact, animal health, veterinary decision

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THE ECONOMIC EVALUATION OF CONTROL IN ANIMAL HEALTH PROGRAMME

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BIOSAFETY ESTIMATION ON BROILER FARMS USING CRITICAL CONTROL POINTS

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Summary

Critical control point (CCP) on poultry farm is a place or process that, if not defined properly, can lead to infection with pathogenic microorganisms. These control points include poor hygiene of employees, changing room, farm yard, poor measures for prevention of cross contamination, vehicles and workers. The purpose of critical control point is to practice control over processes and proceedings in order to reduce or exclude possible infection with pathogenic microorganisms.

Measures and processes that improve safety on poultry farm are appropriate clinical examination of poultry, disease control, isolation and identification of pathogenic organisms, and correct sampling procedure for diagnostic investigation.

Keywords: Biosafety, CCP, broiler farms.

HIGH PRODUCTIVE DAIRY HERD MANAGEMENT

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EFFECT OF MICROBIAL PHYTASE IN BROILER'S NUTRITION ON PRODUCTION PERFORMANCES

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Summary

The possibilities of use of microbial phytase in corn/soybean meal diets for broilers with different dietary total and available level of phosphorus were investigated. Trial was carried out on 300 Arbor Acres broilers of both sexes divided into six groups. The broilers in control groups (K and K+) were fed with complete mixtures of standard raw materials and chemical composition, in which dietary available phosphorus level was formulated at the level of 0.46%. The main source of phosphorus was dicalcium phosphate. In diets for broilers in the experimental groups, by reducing (O-I and O-I+) and complete excluding of dicalcium phosphate (O-II and O-II+), the available phosphorus in mixtures was reduced to 0.25% and 0.10%, respectively. Diets for broilers in the experimental groups (K+ , O-I+ and O-II+) were supplemented with phytase. During the experiment, that lasted 42 days through three phases (1 - 21, 21-35 and 35-42 days), performances, health status and mortality were monitored.

Reduction of the dietary total and available level of phosphorus for experimental broilers induced lower body mass, gain and feed consumption as well as higher feed conversion bringing lower production index. However, by introduction phytase into diets negative effects of phosphorus reduction were, to some extent, alleviated. Total exclusion of mineral source of phosphorus from diet increased mortality and health problems. Addition of phytase decreased mortality and alleviated negative effects of dicalcium phosphate exclusion.

Key words: *broilers, phytase, production performance.*

PRESENCE OF SALMONELLA SPP. ON BROILER FARMS IN SOUTHERN BACKA REGION OF SERBIA

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Modern poultry industry is facing with high health demands toward production of safe food. In this paper we investigated presence of *Salmonella* spp in broiler chicken farms in different stages of production with attempt to recognize possible sources of infection. Day old chickens that died during transport to farm facilities and those that died or have had been sacrificed at the end of production were used for laboratory investigation. *Salmonella* spp were isolated from day old chickens in all farms, in 2005. During one year period of investigation, bacteriology gave positive results on *Salmonella* presence in preslaughter broiler chickens in all farms. Opposite to results from one day old chickens investigation, *Salmonella typhimurium* was most frequent isolate in organs of dead or sacrificed chickens before harvest. Poultry feed from all farms was examined bacteriologically but not on regular bases, and salmonellas were not isolated. Presence of salmonellas in carcasses and smaller number of performed analysis from one day old chickens in relation to preharvest chickens especially indicate the necessity of greater number of different materials for bacteriological investigations on regular bases.

Keywords: broiler farms, *Salmonella* spp, infection.

THE EFFECT OF BUTOX TREATMENT ON THE FATTY ACID COMPOSITION OF THE BUFFALO MILK

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The aim of this study was to evaluate the effect of Butox (Deltametrine) treatment on the fatty acid composition of the buffalo milk. Some studies showed that some medication applied used for endoparasite treatment induce quantitative and qualitative changes in milk composition. In our study even if the pesticide administration was made pour-on in usual doses, the effect was unexpected, with major modifications on the fatty acid composition in milk, but on a short period, fact that indicates the implication of the active substance on the rumenal fermentation, more exactly on the rumenal flora after the absorption in the blood stream and presence at rumenal level. This fact is only an hypothesis of how the pesticide acts on the fatty acid composition. The major impact represented by the percentage average decrease in the fatty acid concentration values from milk, does have - without any doubt - an effect on the consumer, which the better is informed, the more sensitive he becomes in the way of feed quality, in every aspects.

Key words: Butox treatment on the fatty acid composition of the buffalo milk

THE IMPACT OF PENICILLIN TREATMENTS ON THE FATTY ACID COMPOSITION OF BUFFALO MILK

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The aim of this study was to evaluate the impact of penicillin treatments on the fatty acid composition of buffalo milk.

The first sample was collected at 12 hours after the administration. There were 11 samples collected from each animal, at 24 hours interval. The second sample was collected at 24 hours after the treatment. Each sample was lipid-extracted for fatty acid determination, the gaschromatographic method was applied. From the 10 examined fatty acids, there are modifications recorded in the level of all, more or less obvious, in some cases with the decrease or increase until 100% or more. Six from the 10 acids, record a percentage average increase of the values after the treatment and the other four a percentage average decrease compared to the control group. In eight from the 10 analyzed fatty acids, the modifications are still present at 216 hours after treatment and all of the fatty acids suffer level modifications after the milk prohibition period for Penicillin

Key words: penicillin treatments, fatty acid composition, buffalo milk.

**THE EVALUATION OF PROCESSED AND CAPTURED FISH CONTAMINATION
WITH NON-CHOLERIC VIBRION'S
FROM SOUTH AND SOUTHEAST COUNTRY AREAS**

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In this paper was tackled the prevalence of non-choleric vibrions' isolation in fish, this organism being situated on superior level in trophic pyramid of aquatic ecosystem, therefore it concentrates the possible vibrions located in environment and in animals on inferior trophic levels. This theory is proven by the epidemiological study of human clinical cases, the fish being regularly incriminated as contaminant aliment in food-borne toxic infection generated by non-choleric vibrions. From a total number of 11'987 fish samples harvested and processed for 9 years long, there were isolated 218 non-choleric vibrions strains belonging to 3 species: *v. Alginolyticus*, *v. Parahaemolyticus* i *v. Vulnificus*. The prevalence of non-choleric vibrions isolation was highr for the samples harvested from the basic processing points of the fish batches (average prevalence of 3.17) comparatively to the fish captured directly from the aquatic environment samples (average prevalence of 1.39). The prevalence of non-choleric vibrions samples from the fish captured directly from the aquatic environment is higher in the shore area (average prevalence 2.52) comparatively to the prevalence of the isolation from the fish captured from sweet water or flow areas (ma ximum prevalence 1.39). The total prevalence of non-choleric vibrio species isolated in samples of captured fish directly from aquatic environment or samples harvested from batches delievered to the processing units was statistically analyzed for 9 years, recording a value of 9.82. The high frequency of non-choleric virbrions isolations from fish processed in units proves the possibility of after fishing contamination by contact with infected fish and their multiplication either in fish muscles or in produc ts obtained by non-hygienic processing this kind of fish batches could be the source of alimentary toxic infections in human, mostly when they are facilitated by certain factors (temperature, brining, non-hygienic processing etc.).

Key words. Fish, non-choleric vibrión's

THE EVALUATION OF CAPTURED CRUSTACEANS CONTAMINATION WITH NON-CHOLERIC VIBRIONS FROM SOUTH AND SOUTHEAST COUNTRY AREAS

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The aim of this study was to evaluate the contamination with non-choleric vibrios of captured crustaceans from south and southeast country areas. Total prevalence of bacteria isolation from *Vibrio* genus (non-choleric vibrios) for the period of the study was 1.7%. The yearly variations were low, between 2.48% maximum and 1.03 % minimum. By statistical analysis of obtained data it was established that the non-choleric vibrios isolation frequency for the samples harvested in Razelm area (6.45% maximum in 2003) is higher comparatively to the river areas (maximum 1.95% in 1999). The most frequent isolated species were *V. alginolyticus* (42 strains), followed by *V. parahaemolyticus* (27 strains) and *V. vulnificus* (14 strains) and the less isolated ones were *V. mimicus* (3 strains) and *V. furnissii* (2 strains) species. There is a direct link within aquatic ecosystems concerning the non-choleric vibrios contamination of the species from the different levels of trophic pyramid. The main contamination source is represented by invertebrates which generate the zooplankton contaminating the secondary and tertiary consumers (crustaceans and fishes).

Key words: contamination, non-choleric vibrios, captured crustaceans

RESULTS OF PROGRAMME FOR ERADICATION OF MASTITIS AND MILK QUALITY CONTROL TRACKING ON TWO FARMS IN PKB CORPORATION - BELGRADE

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In PKB corporation Belgrade in high productive dairy farms besides problems with sterility mastitis caused by pathogenic microorganisms (Sc. Agalactiae and Staph. Aureus) is present too.

These mastitis are causing big economic losses and entailing a need for adequate and constant program of control and eradication of mastitis with many other preventive and therapeutic measures and with constant control of treated cows with CMT (California Mastitis Test) as well.

In our work, a programme for permanent control of udder health, hygiene of milking process and eradication of subclinical and clinical mastitis forms was created.

By introducing of this program SCC (somatic cell count) and number of bacteria was significantly reduced (SCC < 300.000, bacteria up to 100.000 in 1 ml of milk) in 2 005. Year.

KEY WORDS: MASTITIS, SCC (SOMATIC CELL COUNT), SUBCLINICAL MASTITIS, CMT (CALIFORNIA MASTITIS TEST).

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THE ASSOCIATION OF CARDIOTONIC AND ADRENERGIC BETABLOCKERS IN DILATED CARDIOMYOPATHY IN DOG

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Dilated cardiomyopathy (DCM) is a primary disease of the myocardium which affects especially the males from big breeds characterized by left ventricle enlargement or biventricular and loss of contractility. DCM processes with the triad: heart failure, cardiac rhythm disturbance (atrial fibrillation) and ventricular dilatation with loss a contractility. The animals show the signs of heart failure: cough, dyspnea, exercise intolerance, lethargy, systolic heart murmur, and in the IVth phase (NYHA), the signs of congestive heart failure: ascites and pleural effusions, lack of appetite, the reduction of diuresis. The association of positive inotropic drugs (Digoxin) and an – adrenergic blockers (Propranolol, Metoprolol) had a good results f from the decrease to the end of the signs of heart failure. The doses are: Digoxin 0,22 mg/m² SID, BID; Pimobendan 0,25 mg/kg BID; Propranolol 0,2-1,0 mg/kg, TID; Metoprolol 0,5-1,9 mg/kg, TID

Key words; dilated cardiomyopathy, dog, cardiotonic, adrenergic betablockers

SEMIOLOGICAL AND RADIOGRAFICAL ASPECTS OF THE CANINE HEART

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The studies have been made on the base of the results sent by the Roentgendiagnosis Laboratory of the Veterinary Medicine Faculty of Iasi, out of the private clinics and of the medical clinic of the faculty. The Eltex 400 was used, from the dotation, and the radiographic post.

There were used lateral and dorso-ventral positions (dorsal decubit) and radiologic parameters with different values, depending on the weight of the animal. There were frequently diagnosed : a larged cord, an atrial dilatation, atrio-ventricular dilatation, a globullar cord.

Key words: **canine heart, semiological, radiografical aspects**

BIOCHEMICAL CHANGES OF BLOOD IN DOG UROGRAPHY WITH NON - IONIC CONTRAST SUBSTANCES (ULTRAVIST – 370)

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The morphological and physiological complexity of the urinary system impose the use of both clinic and laboratory methods of investigation. The kidney radiography with contrast non-ionic substances (Ultravist - 370) is very important.

The paper presents the results obtained on biochemical modification of the blood and on the physiological parameters after Ultravist 370 administration. GOT moderately raised shows a hepatic and myocardial cell reactivity; acido-bazic disturbances. F. A. and GGT present a raising tendency to hepatic cholestasis. The cholesterol rises with 50 units 1 hour after administration. Fe is slightly raised after 1 hour from administration but comes back after 24 hours. There were moderate modifications in the excretory apparatus. The equilibrium among filter and reabsorption comes back after 24 hours of rehydration.

Key words: biochemical changes, blood, dog urography, non-ionic contrast substances (Ultravist – 370)

EFFECTS OF ALUMINIUM CHLORIDE ADMINISTRATION ON SOME TRACE AND MACRO- ELEMENTS IN RABBIT'S BRAIN

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The researcher purpose was to evaluate the modality in which the aluminium accumulate in rabbits brain after the sc. Administration and the modification of others trace microelements Aluminium accumulates in brain after aluminium chloride administration from $3.37 \pm 0.59 \mu\text{g/g}$ in control, to $16.14 \pm 1.53 \mu\text{g/g}$, corresponding to 380% of increase. Also was registered a increase of Fe, Mn and Ca amount in brain

Key words: aluminium, rabbit, brain, trace metals.

CHANGES IN ANTIOXIDANT ENZYMES ACTIVITIES AFTER ALOE EXTRACT ADMINISTRATION IN CdCl₂ INTOXICATED RATS

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Cadmium is an environmental polluting agent which is present in soil, water and air (cigarette smoke). As cadmium absorption is realized very quickly, its metabolism is very slow, which causes a tissue increasing in time. It realizes a protein binding to form a metalothioneine. The cadmium toxicity is due to the cell membrane lipids peroxidation, which causes the free radicals formation, the SH dependent enzymes inactivation and zinc enzymes inactivation as cadmium is a zinc antagonist.

In the last years, the cadmium toxicity diminution was studied in relation with some natural vegetal antioxidants as some pigments (antocianines) and vegetal extracts. Both pigments and extracts have in their composition polyphenols, flavones and flavonoids, compounds with antioxidant properties.

In the present work the aloe antioxidant effect on the rats eritrocitary enzymes was studied both in relationship with the prevention and the treatment, after cadmium intoxication.

Catalase (CAT), superoxid dismutase (SOD), glutathione peroxidase (GSH -px), glutathione reductase (GSH-red) and methaemoglobin reductase (MHB-red) were determined by colorimetric methods

The preventive aloe extract use increased the red blood cells enzymes antioxidant activity; after cadmium intoxication, the efficiency of aloe extract was determined only in CAT and SOD activities; glutathion cell concentration and the GSH-px and GSH-red activities decrease after cadmium intoxication; the most important activity decreasing was registered in GSH -px.

Key words: **antioxidant enzymes activities, aloe extract, CdCl₂**

SIDEREMIA, HAEMOGLOBINEMIA AND METHAEMOGLOBINEMIA LEVELS IN CdCl₂ INTOXICATED RATS AND ALOE EXTRACT TREATED RATS

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Iron metabolism is influenced by the presence of the oxygen free radicals, due to the lipid peroxidation installed as a consequence of the cadmium effect. This effect can be a direct or an indirect one. So, food cadmium decreases the iron intestinal absorption. The indirect influence of cadmium in iron metabolism is present in some enzymes activities. A decreasing in ceruloplasmin (oxidase) activity was observed in cadmium administration as it is antagonist with copper. On the other hand, a kidney cadmium accumulation has an important influence in erythropoietin synthesis. All the iron metabolism changes could be observed in the disturbances of haemoglobinemia (Hb), methaemoglobinemia (MHb), sideremia (Fe) and total iron binding capacity (TIBC) values. The diminution of the disturbances due to cadmium can be decreased by the antioxidants such as vitamins (A,E,C) or other compounds from the natural extracts as flavone, flavonoides, diphenols, polyphenols, etc.

In the present paper the effect of the administration of an aloe extract on some iron rat blood parameters, was evaluated.

Haemoglobinemia, methaemoglobinemia, sideremia and total iron binding capacity were determined by colorimetric methods.

The administration of aloe extract, both in prevention and treatment, in cadmium intoxication has the following effects: an increasing of haemoglobinemia and of the total iron binding capacity and also a decreasing of methaemoglobinemia; A good effect in preventing the oxidation of the iron blood parameters, due to the antioxidant aloe compounds (anthocyanines, flavones and polyphenols).

Key words: sideremia, haemoglobinemia, methaemoglobinemia, CdCl₂, aloe extract

ANTIOXIDANT ENZYMES ACTIVITIES EVOLUTION IN OXIDATIVE STRESS STATUS AND ALLIUM SATIVUM EXTRACT TREATED RATS

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Cadmium (Cd) is one of the most toxic heavy metals. Exposure to this metal can occur great damages in the natural environment because it is utilized in a number of industrial practices and is a ubiquitous contaminant of the environment and dietary products. Cd toxicity has been widely studied and reported. People and animals living in the neighborhood of this industrial places are exposed to air pollution, which increase the Cd level in dust, food crops and water.

An Allium sativum extract contains a lot of sulfur compounds; the reactivity of dialkyl thiosulfinates in general (and of allicin in particular) with -SH groups might result in the compounds possessing significant inhibitory effects against malignant cells , which can be a consequence of the free radicals production.

In the present work we studied the curative and preventive effects of an Allium sativum extract on some oxidoreductase in cadmium intoxicated rats. Catalase (CAT), superoxid dismutase (SOD), glutathione peroxidase (GSH-px), glutathione reductase (GSH-red) and methaemoglobin reductase (MHB-red) were determined by colorimetric methods.

The conclusions of this work were as follows: Cadmium and the Allium sativum extract had an antagonist effect on catalase and superoxid dismutase activities; the extract had any effect in reestablishing the GSH-px activity;

In a concentration of 0.5ml Allium sativum extract/day, the AS extract (1.08 mmols thiosulphinates/ml extract) may prevent the hepatocellular membrane lesions and may reestablish the mitochondrial function

Key words: antioxidant enzymes, oxidative stress, allium sativum extract

THE EFFECT OF ALLIUM SATIVUM EXTRACT ADMINISTRATION ON TRANSAMINASE AND ALKALINE PHOSPHATASE ACTIVITY IN OXIDATIVE STRESS STATUS IN RATS

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Cd in the cell is often bound to cytoplasmatic proteins, which may be a possible detoxifying mechanism. Cd toxicity due to its ability to combine with SH groups, thereby preventing normal functions.

The SH-group enzymes have important functional role, including the formation of disulfide bridges and conformational changes in the proteins.

The Allium genus represents an important natural resource of sulphur compounds; the S-substituted cysteine and the - glutamyl peptides are their most important derivatives which are responsible of the odor and flavour of these species. Some of the representants of the Allium family is Allium sativum,

In the present paper are presented the studies concerning the effects both the cadmium toxicity and Allium sativum extract administration on rat liver.

Transaminase (alaninaminotransferase - ALAT, aspartat aminotransferase ASAT) and phosphatase alkaline (PA) were determined by colorimetric methods.

ALAT activity had an immediately response at the toxic; the ALAT activities high values were explained by the liver response at the toxic effect both of Cd and the AS extract short time expose;

A longer time AS extract administration may prevent the damage of the hepatocellular membrane; ASAT and PA activities were less affected

Key words: oxidative stress, allium sativum extract, transaminase and alkaline phosphatase activity

THE IMPACT OF CHRONIC ALUMINIUM SULPHATE INTAKE ON THE MARKER OF MALE REPRODUCTIVE FUNCTION: LITTER SIZE

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Mating of chronic exposed male rats to aluminium sulphate in drinking water (three month at 200, 400 and 1000 ppb aluminium) with not before mating exposed female rats (to obtain F1 and F2 generations) or with before mating exposed female rats (one month at 200, 400 and 1000 ppb aluminium) (to obtain F1' and F2' generations) and during pregnancy at same level in all experimental groups has had as consequence: significant decrease of litter size from F1 and F2 generations in groups receiving 400 and 1000 ppb aluminium and of litter size from F1' and F2' generations in all experimental groups; significant decrease of litter size as aluminium level in drinking water increased in all experimental groups; not significant influence of before mating exposure of the female rats on litter size (excepting at 200 ppb Al) in F1' generation and only at the highest aluminium level (1000 ppb) in F2' generation; no influence on the litter size of period of exposure (one or two generations) when male rats were coupled with unexposed female rats and significant negative influence when male rats were coupled with exposed female rats (excepting at 200 ppb Al level).

Key words: chronic aluminium sulphate intake, male reproductive function, marker

**THE CONSEQUENCES OF CHRONIC ALUMINIUM SULPHATE INTAKE ON THE
MARKER OF MALE REPRODUCTIVE FUNCTION: INTERVAL BETWEEN
DELIVERIES**

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Mating of chronic exposed male rats to aluminium sulphate in drinking water (three month at 200, 400 and 1000 ppb aluminium) with not before mating exposed female rats (to obtain E and E'' variant) or with before mating exposed female rats (one month at 200, 400 and 1000 ppb aluminium) (to obtain E' and E''' variants) and during pregnancy at same level of all experimental groups has had as consequence: increase of interval between deliveries depending on aluminium level especially in case of male exposure (E'') or both parents exposure (E' and E''') and period of exposure (E'' and E''' > E and E')

MYCOTOXINS FROM FOOD/FEED: PROCESSING CONDITIONS. EVALUATIONS REGARDING THE RISKS UPON ANIMALS AND HUMAN HEALTH

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The paper presents a short review regarding mycotoxins from food/feed and some evaluation on the risks upon animals and human health.

During the last three decades in the laboratory of the discipline for Nutrition and Feedstuff Quality Control were made mycotoxicologic analysis and exams for a significant number of samples of cereals from different areas of Transylvania.

Our results have emphasized that more of the half of the examined feed samples were infested with mycetes with mycotoxic potential (Dancea, 2002, 2003, 2004, 2005).

The cooperation with researchers from the University of Hohenheim, Germany allowed us to realize determination of mycotoxins from cereals crops from the area of Cluj-Alba (Macri, 2003, 2004, 2005). Based on the evaluation of the results are proposed: the developing of the mycotoxins control of the feed/foods (inclusively those from the market); the permanent control and the evaluation of the exposure degree as well as the losses caused by the mycological contamination of the feed; integrated administration of the mycotoxins from the food; prevention of the contamination as well as the decontamination of the aliments based on the HACCP system; the developing of the quality for the analysis methods of the risks related to the occurrence and presence of mycotoxins in aliments.

Key words : mycromycetes, mycotoxins, fodders, aliments, contamination, effects

OPTIMISATION OF EXPRESSION AND PURIFICATION OF RECOMBINANT TOXIC PROTEINS WITH NEW TECHNIQUES FOR SPECIFIC ISOTOPIC LABELING

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The structural determination of proteins in solution by NMR spectroscopy often requires the preparation of ^{15}N - and $^{15}\text{N}/^{13}\text{C}$ -labeled protein samples. One obvious problem is the diminishing protein expression yield in media with a minimal amount of expensive ^{13}C and ^{15}N sources. In order to reduce the costs we developed new methods for isotopically labeled proteins.

The production method generates cell mass using unlabeled medium with limited amounts of nitrogen (^{14}N) and/or carbon (^{12}C) sources. Following a short period of starvation due to lack of carbon and/or nitrogen, cells are supplemented with isotopes (^{13}C -glucose and/or ^{15}N -ammonium chloride) and concomitantly induced. This expression method used for human FKBP (FK506-binding protein, [6]) provides a three to fivefold reduction in isotope costs for protein expression in comparison to a simple shake flask.

Another problem for the expression of some recombinant proteins in *E. coli* strains is their toxicity for the host. The test protein has been the excisionase Xis from bacteriophage HK022 [7]. Xis has been expressed in an optimised medium isotopically labelled for NMR studies. During growth it was useful to exchange the unlabeled medium into a reduced volume labeled medium before starvation of the cells, in order to increase the expression rate of the desired protein and the stability of the host. The specific labeling rates were determined by MALDI-TOF as 97% ($\pm 2\%$) for ^{15}N -labelled protein and 96% ($\pm 2\%$) for the $^{15}\text{N}/^{13}\text{C}$ -labelled protein. The cost reduction factors ranged between 15-fold (^{15}N) and 20-fold ($^{15}\text{N}/^{13}\text{C}$) in comparison to a simple shake flask. By applying these new techniques we circumvent the toxicity of the recombinant protein.

ELISA KIT FOR QUANTITATIVE DETECTION OF ANTIBODIES AGAINST INFECTIOUS LARINGOTRACHEITIS VIRUS (ILT)

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Has been elaborated an ELISA diagnostic kit (ELI -LTI) for quantitative detection of antibodies against avian infectious laringotracheitis (ILT virus) from birds vaccinated or infected with this virus. Antibodies quantification was made in comparison with positive and negative control sera from the kit, and results interpretation was made with a software calculating the positivity percent using the positivity ratio (S/P – sample per positive ratio) for each sample. The immunoassay (ELISA) is able to provide important data on post-vaccinal immune status of chickens and mature birds against infectious laringotracheitis virus. In Pasteur Institute, ELI -LTI diagnostic ELISA kit has been developed in order to permit antibodies titer calculation using a single dilution of the test sera. This fact proved to be very useful in vaccination screening, because antibody titer determination from a serum is the easiest way to know if an animal is protected or not after immunization. Technical advantages of the ELI-LTI kit include miniaturization (used for a great number of samples with very low volume) and use of calibrated reagents. At the same time, the results obtained using ELI -LTI kit provide precise information of the flock immunization

Key words: ILT, ELISA, antibody titer, chicken

RESEARCHES REGARDING ISOLATION OF HELICOBACTERIA WITH INTESTINAL TROPISM FROM CATS AND DOGS

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Summary

Helicobacter genus includes 19 bacterial species which colonizes the stomach, the intestine and the liver in birds, mammals and humans. The pathogenic factors existing in the bacteria belonging to this genus are: colonization factors, persistence factors and lesion -inducing factors.

Researches have been conducted on 46 dog corpses and on 16 cat corpses, grouped on age categories.

Culturing was made on the agar Skirrow medium (Oxoid). This medium contains polymixine B, vancomicine and trimetoprim and at the pouring time over Petri plates it is added 0.5 ml horse defibrinated blood. Plates have been incubated at 37°C in atmosphere with 10% CO₂ for 48 hours.

After incubation the plates have been examined using the stereoscopic magnifying glass to evaluate the culture characteristics and were made smears to emphasize morphologic and tinctorial characteristics.

The Skirrow medium excludes the growth of other bacterial species, but it does not allow the differentiation of helicobacter species with intestinal tropism.

In case of positive samples, on this medium were present small colonies, non-pigmented and translucent with -hemolysis. In these colonies on culture mediums were found spiraled Gram negative bacteria, of type S or comma.

Using the culture, morphologic and tinctorial characteristics, isolated bacteria can be framed in the Helicobacter genus.

The results that were obtained demonstrate that more than half of the corpses that underwent bacteriological examination were positive, suggesting that dogs, as well as cats carry in a quite large amount helicobacteria with intestinal tropism.

**SALMONELLA-BASED INFECTIONS IN SHEEP DIAGNOSED IN VETERINARY
LABORATORY TIMI ,
DURING 1996-2005**

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RABIES VIRUS DETECTION BY USING AN IMMUNOFLUORESCENT CONJUGATE BASED ON IgY

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In this paper is presented a developed method to produce a large amount of rabies virus - specific antibodies by immunizing layer hens with rabic ribonucleocapside and we coupled them with fluorescein isothiocyanate and we used the conjugates in the direct immunofluorescence technique to detect the rabies virus. Rabies virus ribonucleocapside has been extracted by cesium chloride gradient ultracentrifugation and IgY extracts batches have been prepared using eggs from hens inoculated with this antigen; IgY extracts have been biochemical (proteic and lipid concentration) and immunochemically (ELISA and serum neutralization followed by immunofluorescence); IgY batches with the highest titers (16.8 UI/ml) have been used to obtain FITC labeled immunofluorescent conjugates; Fluorescent conjugates have been biochemical (proteic concentration and labeling factor) characterized and tested by direct immunofluorescent technique to detect rabies virus in cell cultures; Results obtained showed the possibility to obtain vitellus antibodies based reagents, to be used in immunofluorescent technique for rabies virus detection..

Key words: rabies virus, IgY antibodies, direct immunofluorescence technique

THE SENSIBILITY TESTING ABOUT ANTIBIOTICS FOR BRUCELLA CANIS STRAINS ISOLATED FROM DOGS

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SUMMARY

The dogs brucellosis caused by *Brucella canis* is a sporadic disease, without high economical importance, but with sanitary importance, because the risk of contamination for human population is real. The aim of this study was to evaluate the sensitivity of isolated stems for the most usual antibiotics to constitute a guide for immediate therapy in canine brucellosis. The most intense effect of “in vitro” tested antibiotic upon the *Brucella canis* stems are: streptomycin, amoxicillin associated with clavulanic acid, azitromycin, rifampicin, doxycycline or tetracycline. The cephalosporin groups or fluoroquinolone group do not prove efficiency in the case of tested *Brucella canis* stems. The beta-lactams antibiotics group and some macrolids had a reduced action over the tested stems. The biggest resistant percentage to antibiotics was stated in the case of cephalosporin and nalidixic acid.

Key words: antibiotics sensibility, *brucella canis* strains, dogs

THE OPTIMISATION OF ISOLATION AND IDENTIFICATION METHODS FOR BRUCELLA CANIS

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The aim of this study was to optimize of isolation and identification methods for Brucella canis. It was harvested a total number of samples to come from 285 clinical cases (dogs), presumptive diagnosed with brucellosis.

The bacteriological exams had included: simultaneously insemination in different solid and liquid mediums; for solid medium insemination was made on 2 Petri plates for each use medium. The prelevated samples are: blood (from hyperthermia cases), urine, total sperm, aborted materials, and in case to use the orchidectomy or ovary-hysterectomy – was harvested the resection materials.

The inseminated medium was incubated on aerobics conditions and in anaerobic conditions (because the presumptive implied species of Brucella are unknown) to 37 degrees between 24 – 48 hours. The incubated plates are daily examined until to developing the bacterial colonies. From developed colonies are made sample-slides which are colored by mentioned techniques.

From positive Brucella colony are made sub-culture in Brain-heart broth with glucose and broth with glucose and glycerin, and the obtained pure stems was submit to complex biochemical exams. On the 285 samples prevailed by dogs with presumptive brucellosis it was isolated and identified belong Brucella canis species a total number of 10 stems. The best result of used isolating medium was obtained in case of Columbia agar associated with nalidixic acid or vancomycin, which don't permit to develop other bacterial species. The Brain-Hearth Broth with 5 % glucose and with 10 % horse serum, or Brain-Hearth Agar with 5 % sheep blood, it was the optimal medium for developing of Brucella canis stems. The Brucella canis culture was preserved through freezing at -20 degrees; in this condition it was kept the vitality properties for a long time.

Key words: **isolation, identification methods Brucella canis**

**PCR DETECTION OF BRUCELLA SPP. BASED ON OMP25 SEQUENCE AND
CLONAL RELATIONSHIP ANALYSIS BY USING THE RAPD TECHNIQUE**

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Abstract

In PCR test designed for *Brucella* spp. specific *omp25* gene, responsible for macrophage modulation function and intra-cellular bacterial survival, all 23 strains from Pasteur Institute collection (6 *Brucella suis*, 10 *B. abortus*, 1 *B. canis*, 4 *B. melitensis*, 2 *Brucella* spp.), were positive. 12 genetic types were recorded by RAPD analysis. *B. melitensis* strains grouped in 1 cluster, while the rest of the strains proved various degrees of genetic polymorphism.

Key words: *Brucella* spp., PCR, *omp25*, RAPD

SERUM CONCENTRATIONS OF SOME TRACE ELEMENTS AND CERULOPLASMIN IN CATTLE PERSISTENTLY INFECTED WITH BOVINE VIRAL DIARRHEA VIRUS

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Bovine viral diarrhoea virus (BVDV), a ruminant pestivirus, is one of the most important pathogens of cattle, causing a wide range of clinical syndromes like a variety of illnesses in adult cattle, abortion, teratogenic defects, stillbirths or weak calves and has a world-wide distribution. Infection of cattle can result in disease entities ranging from subclinical infection to mucosal disease. If cows are infected between 30 and 120 days of gestation, the virus can cross the placenta, infect the foetus and induce persistent infection. Maternal antibodies don't cross the bovine placenta, and because the fetus has not yet established immunocompetence against BVDV, it has at this stage, no defense against the virus. There is a no detectable immune response to the virus, generally no antibodies are produced, and the calf remains persistently infected.

Although it is widely recognized that essential trace elements are required for the differentiation, activation and performance of numerous functions of immune cells, the specific roles of these micronutrients remain largely undefined.

The aim of this study was to investigate serum ceruloplasmin, Fe, Cu and Zn levels in cattle with persistently infected BVDV .

Key words: bovine viral diarrhoea virus, cattle, trace elements, ceruloplasmin

IS A TURTLE RIGHT FOR YOU?

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Many people love turtles due to their unusual aspect, exotic character and associate their real image with that of human creation. Because they are indeed exotic animals little knowledge is necessary. So before we go to buy this kind of animal let's read about their particular lifestyle, to contact a herpetological society, to prepare a comfortable space and a proper feed. It's good to know that they can live 40-100 years. We must allocate turtles at least 10 minutes daily and one hour weekly. If well treated they become agreeable pets, capable to recognize you among other people and capable to make you understand their needs. Although they are not very expensive and their feed is not costly when they get sick the treatment cost can rise up to that for a dog or a cat. In order to test different feed sorts recommended by technical literature we fed beef heart and worms (Tubiflex) to group A and respectively to group B beef heart plus commercial food for turtles. The body weight evolution, although better in group B, doesn't relieve significant differences.

INCIDENCE AND MORPHO-PATHOLOGICAL ASPECTS OF SPONTANEOUS TUMOURS IN DOG

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Nowadays, company animals play a more important role in terms of affection in human life, especially in big cities. In the last years, spontaneous tumours in carnivorous animals have increased very rapidly.

Our researches were carried out during a period of two years (2003-2005), when we took various tumours from the Faculty of Veterinary Medicine Timi oara, and also from different private surgeries from Timi oara.

The global distribution of tumours into the two sex groups shows a superior tumour frequency in females, with a preponderance of mammary tumours.

Key words: dog, tumours, frequency, morphopathological .

COMPARATIVE ASPECTS CONCERNING GUINEA PIG AND WHITE RAT ELECTROCARDIOGRAMS

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Electrocardiograms were produced using the bipolar and unipolar limb derivations from 50 adult, clinically healthy Guinea pigs randomly selected from the basic stock. Individual calculations were performed for heartbeat frequency, amplitude (mV) and duration (sec) of electrocardiogram components: P wave, P-R interval, QRS complex, Q-T interval, T wave and R-R interval. The average physiological values and the standard variations were calculated from these data. The values for D_{II} derivation were: P wave = 0.06 mV and 0.038sec; P-R interval = 0.056sec; QRS complex = 0.40mV and 0,076 sec; R-R interval = 0.249 sec. The heartbeat frequency calculated from the R-R interval averaged 240 beats/min, spanning from 157 to 333 beats/min. These data were compared with the data on Wistar white rat. It was observed that the elements of a normal electrocardiogram in Guinea pigs are better individualised and that the morphological modifications that appeared during the experimental cardiomyopathy and arrhythmia allow a much more correct interpretation suggesting thus the importance of its preferential use.

Keywords: electrocardiogram, Guinea pig, white rat

CONSEQUENCES OF INCREASING NORFLOXACINE DOSES IN POULTRY

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DIANA ARGHERIE, A, DAR U**

Veterinary drugs safety studies are important due to their interest for the poultry industry where dosage is frequent in water or fodder. It was proposed a safety study in a soluble powder of norfloxacin based conditioning compound (Norphyll 100%®Phylaxia -Pharma) was used.

Researches followed possible consequences after norfloxacin growing doses administration in Cobb 500 broilers.

Were formed five lots of 10 chicken (E1 - E4) and one lot control, where drug was orally administrated in raised individually doses as follows: 20 (E1), 40 (E2), 60 (E3), respectively 80 mg * kg⁻¹ (E4), after drug indications.

Were evaluated:

Bio productive indicators: comparative daily body weight gain, daily fodder and water consumption rate.

Clinic examinations: local and general tolerance, appetite for fodder.

Para clinic examinations: blood (RBC, WBC, Hgb, haematocrit, leucogram), biochemical (total proteins, albumins, globulins, and kreatinin, uric acid, AST, ALT, and ALP enzyme values). Haematological examinations were realised with the automatic MS-9-Vet Analyzer and biochemical examinations were done with semiautomatic Vet-Screen Analyzer

Visual examinations: anatomo and histopathologic. After sacrificing and morph-pathologic examinations samples of liver, spleen, kidney, and bone marrow were collected for the histopathology investigations.

Local and general tolerance of norfloxacin is in generally good, but in lots E3 and E4 diarrhoea correlated with fall of the appetite for fodder and water, established through average daily consumption evolutions.

Haemoleucogram was not evidently modified, with the exception of leukocyte's formula. Also were registered fluctuations of total proteins, albumins, globulins, uric acid, but with maintaining among reference values.

In E3 and E4 experimental lots, evident rise value of kreatinin concentration installed but between reference value limits.

In the up mentioned lots was observed slight hepatic, renal and spleeny modifications.

Key words: norfloxacin, drug safety, broilers

STUDY OF RAW MILK CONTAMINATION DEGREE ALONG THE COLLECTING FLUX

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In the paper are presented the results obtained on the contamination degree of raw milk along the collecting flux. The incidence of samples with bacterial load bigger than the maximum admitted limits in studied collecting centers during a two years period (2004 - 2005) was very high (87,3%), also, regarding the somatic cells number, the samples incidence with values bigger than the maximum admitted limits was very high (45,1%), with large fluctuations among centers. Between the three monitored parameters does not exist a direct correlation.

Key words: raw milk, contamination degree, collecting flux

STAPHYLOCOCCI CARRIERS, RAW MILK CONTAMINATION SOURCES

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The researches aimed to establish the origin of staphylococci presented in milk samples based on the results of API-Staph test and the hemolysis and coagulation towards rabbit blood and sheep. Biochemical properties probation by API-Staph test allowed the bordering of 81,31% of strains, being identified five species, with a different frequency, considering samples provenance.

Staphylococcus aureus strains had a high incidence, especially those sampled from nasal cavities (40,62%). *Staphylococcus aureus* strains isolated from milk and from caretakers hands proved to have animal origin (72,73% and 77,78% respectively), while *Staphylococcus aureus* strains isolated from nasal cavities proved to have, in 53,85% of cases, human origin.

Key words: Staphylococcus species, milk contamination

RESEARCHES CONCERNING THE WELFARE ASSESSMENT OF THE LAYING HENS RAISED IN HOUSEHOLD UNITS FROM VRANCEA COUNTY

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This paper aims to fulfill this lack and to test if an already tested and efficient method for laying hens' welfare assessment, respectively the ANI 35L system, could be applied in field condition in Romania. The subsidiary objective of the study is to establish if in household rearing unit the welfare of the laying

The welfare of the laying hens rearing in household units from Vrancea county is qualified as mediocre suitable with respect to welfare, the average dispersed value of the 10 overall ANI score for assessed flocks being in 16 points -21 points interval. This reveals that in household units from our country there is not a good assurance of good welfare premises. The situation is opposite to the one recorded on worldwide level, where in household units the hens welfare usually is very suitable to respect of welfare and the behavior is very similar with natural behavior (behavioral patterns of wild fowl). In order to improve the welfare of the laying hens in household units, some measures addressed to the critical points of housing condition are to be taken: improving birds health, the continuous recording of the epidemiological data in the flocks of hens, the improvement of housing condition by assuring a mixed lighting system, a natural ventilation system, a good quality litter and access to grassland. In the same context, it is recommended to assume some modern free range systems for rearing laying hens in household units (i.e. Egg-Mobile). The researches proved the feasibility of ANI 35 L/2001 systems in the field condition of Romania, in the assessment of the laying hens' welfare reared in household units. The system has the following advantages: high objectivity; quick results; low costs; great capacity of underlining the critical points and thus it create the possibility of quick improve the welfare of the hens.

Key words: welfare assessment, laying hens, household units

THE INFLUENCE OF CERTAIN MICROELEMENTS' LEVEL IN THE DIET OF CHICKENS FOR MEAT OVER THE SANGUINE AND BIOPRODUCTIVE BIOCHIMICAL PARAMETERS

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Abstract

The present experiment focused on the influence of Se, Zn, Cu, Mn, and Fe in the diet over the sanguine and bioproductive biochemical parameters in chickens for meat. 48 Broiler chickens, Ross hybrid 308, age 1 day, have been used; they have been divided into 4 batches: one witness batch (M), and three experimental batches (E₁, E₂, E₃), and have been maintained on pyramidal batteries. They have been kept on different diets, with different levels of Se, Zn, Cu, Mn, and Fe, namely: 75% out of M's standard levels for E₁, 50% out of M's standard levels for E₂, and 25% out of M's standard levels for E₃. Periodically, blood samples have been exposed for serum expressing, and analyzed.

Conclusions: M chickens evolved according to the specific indicators for the hybrid; the chickens in the experimental batches presented a smaller corporal mass and a higher specific consumption, proportional to the presence of the observed elements; the concentration of the observed microelements in blood at M chickens maintained in the range of the data in the scientific literature; the concentration of the microelements in blood at E₁, E₂, E₃ chickens was lower if compared to the values registered in M batch.

THE DISTRIBUTION OF CAMPYLOBACTER STRAINS AFTER ASSESSING THE CONTAMINATION OF THREE CONTROL POINTS OF POULTRY EVISCERATION

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This study was conducted on 120 samples in 8 lots from "A" unit (40 prelevations from point no. 1; 40 prelevations from point no. 2 and 40 prelevations from point no. 3) and 120 samples in 8 lots from "B" unit distributed the same way as unit "A".

Using direct isolation during the evisceration process, the presence of *C. jejuni* was shown in 47.5% of the tested samples, *C. coli* being present in 26.6% and *C. lari* in 2.08% of the total samples.

Unit "A" was contaminated in 81.66% and unit "B", in 70.8% of the cases.

The following strains were identified using the enrichment method: *C.jejuni* in 57.08%, *C.coli* in 28.33% and *C. lari* in 2.5% of the tested samples.

Unit "A" was contaminated in 85.0% and unit "B" in 90,8% of the cases.

After enrichment using the Adapted medium, the unit "A" samples from the control point no.1 were positive 100%, the samples from the control point no.2 were 82.5% positive and those from control point no.3 were 72.50% contaminated.

After the same enrichment process, the unit "B" samples from the control point no.1 were positive 100%, the samples from the control point no.2 were 90,00% positive and those from control point no.3 had a decrease of contamination by 82,5%.

The evisceration process caused a cross contamination of the carcasses, which was distinguished in all three points tested.

The present study shows that in the slaughtering process the germs are not completely eliminated in this points and therefore a strict assessment for hygiene during the technologic flow is absolutely necessary.

Key words: control of three points, contamination, Campylobacter, evisceration, technologic flow.

STUDIES ON GROSS MORPHOLOGY OF VITELLINE DIVERTICULUM (MECKEL'S DIVERTICULUM) IN SEVERAL AVIAN DOMESTIC SPECIES

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The research has been performed on the following domestic fowl species: the domestic hen (*Gallus domesticus*), and three domestic web-footed fowl species: the domestic duck (*Anas domesticus*), the Muscovy duck (*Cairina moschata*) and the domestic goose (*Anser domesticus*). Eight adult individuals of each species (a total number of 32) have been under surveillance, bred both in intensive breeding units and in private farms. Only conventional individuals have been monitored. Research has been performed on recently slaughtered individuals, put out with an intrabulbar injection (in the rachial bulb) of 4 per cent xyline solution. The vitelline diverticulum (the Meckel's diverticulum) may be considered as the third fowl lymphoepithelial organ, due to its structure and functions. This structure represents the vestige of the vitelline sack and channel and it links the embryonal intestine lumen and the vitelline vesicle cavity. The vitelline diverticulum is located on the great jejunum curve and it is attached to the jejunum great curve by a short pedicle. The vitelline diverticulum differs on a macroscopic level at the studied species. The hen has an elongated slightly cylindrical and flexible vitelline diverticulum; the duck and the domestic goose have a rather worm-like vitelline diverticulum; the Muscovy duck has a pear-shaped vitelline diverticulum. The vitelline diverticulum size differs according to species and age; the maximal development was noticed at the age of 3 – 4 months at hens and at the age of 6 – 7 months at web-footed fowl species.

Key words: Morphology, Vitelline Diverticulum (Meckel's diverticulum), Avian Domestic Species

**EVALUATION OF PRACTICAL SUITABILITY OF TWO ARTIFICIAL
INSEMINATION TECHNIQUES IN THE BITCH: INTRAVAGINALLY AND
INTRAUTERINE BY TRANSCERVICAL WAY**

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Summary

One of the factors that determines the success rate of artificial insemination in dogs is insemination technique, especially in the artificial insemination with frozen-thawed semen. The aim of this study was to evaluate a practical suitability of two artificial insemination techniques: intravaginally and intrauterine performed by transcervical way. Six bitches were monitored during the oestral cycle. Transcervical insemination technique was performed at the optimal moment for artificial insemination following the method described by Andersen -1976 (1). The place of semen deposition was checked through X-ray examination, using probes with radio-opaque markers and bariumsulfate as contrast medium. Intravaginally inoculations were made using the technique presented by Christiansen -1984 (2). There were determined the necessary time for semen passage from the anterior vagina to uterus, by X-ray examination performed at every five minutes.

The attempts of cervix passage failed in all six cases. Probe placement in the front of cervix is easy to be done and contrast medium can be observed even from its deposition into vagina, five minutes later the contours of vagina and cervix can be observed, transcervical passage lasting 10 -25 minutes. In conclusion, intrauterine insemination technique through cervical catheterization is difficult to be accomplished. Intravaginal techniques ensure the easy semen passage from the anterior vagina to uterus.

IDENTIFICATION OF THE FATTY ACIDS IN THE VIEW TO APPRECIATION OF THE QUALITY AND THE ORIGINALITY OF THE FOOD

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The fats or the lipids represent most important energy source for organism

The fat acids are constituents fundamentally of many category of fats, confers them differently organoleptic characteristics.

From chemical angle, the fatty acids can be: saturated and non -saturated.

The fatty non-saturated acids are unstable, fluid mauls, be responsive to ace scency (suffers the biochemical complex process, at large hidrolitico -oxidativ process, at contact with external factors: oxygen, ions of a metal, the light aura, etc). They represents bases the fats of vegetable origination, in the shape of vegetable oils (the soy, the flower, corny germs corn, grape-stones), but arid meet at mort and at fish or at the marine mammals flesh.

Key words: **unsaturated fatty acids, lipids, food.**

CLINICAL AND HISTOPATHOLOGICAL ASPECTS IN PRIMARY INTRAOCULAR MELANOCYTIC TUMORS IN DOGS

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Emilia Ciobotaru, T. Soare, I. Micl u
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A study done in the Surgery Clinic of Faculty of Veterinary Medicine during on a period of three years revelead that the primary intraocular melanocityc tumors in dogs are frequent in our country in Chow-Chow, Caniche, Pekinegese and German Shepherd. The clinical aspects are unilateral glaucoma, uveitis, intraocular haemorrhage or posterior keratitis, without therapy response. The ocular ultrasound and the lack of therapy response is very important for the diagnosis. The surgical treatment (enucleation) is the choice for primary intraocular melanocytic tu mors.

Key words: primary intraocular melanocytic tumor, dogs

**SUBCUTANEOUS IMPLANT OF TRANSPONDER IN PIG'S ROSTRAL ZONE
(REGION ROSTRALIS DORSALIS) – HISTOLOGICAL REACTION
AT THE SLAUGHTER AGE**

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Preliminary pilot studies concerning the choosing of the dorso-rostral area in piglets as a possible microchip implant zone were accomplished including the local histological investigation. In this aim, during the normally slaughter process, five random samples containing the transponder and the surrounding connective capsule were collected from pigs at slaughter age. The components of this identification device respectively the 11x 2 mm microchips protected in a neutral glass cover were subcutaneous implanted in piglets, in the dorso-rostral area (regio rostralis dorsalis) in their first week of life.

The subepithelial layers of the cutis in the rostrum area generally provide an optimal tissue reaction in reason to isolate and fix the transponder. Further, the subepithelial layers of cutis provide a different reaction capacity than those of the complexes deep dermal tissue. Although the implanted transponder behave like a common inert foreign body generating in host's tissues a benign reaction, the evolution of the retention process depends on secondary local factors playing either an important adjuvant role or acting as disturbance factors. The possibility of some repetitive trauma in the dorsal nasal area might induce disturbance of the normal foreign body encapsulation process but do not disturb the fixation or the identification process.

SUBCUTANEOUS TRANSPONDER IMPLANT IN PIGS - RESULTS OF A COMPARATIVE FIELD TRIAL CONCERNING TAGGING PROCEDURES AND READING PERFORMANCE

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For the effective control of the swine production system, it is essential to have a reliable method for identifying individuals and possibly also groups of pigs within the herd. Pork producers traditionally identify swine and pork by visual methods such as ear notching, ear tags, tattoos (ear or flank). All these methods, have a low retention rate (for ear tag, around 30 - 40 %), are difficult to read and are not tamperproof. The best and most efficient method utilizing the modern technology of today is the electronic system for identifying swine and pork.

The study is aimed to develop a pig EID system which is compatible with the farming automation, with the present food production procedure and food safety. In particular the project was focused on the use of small size transponder, injected in the snout area (dorso-rostral area). This injection site, never explored before, and with not relevant importance, from commercial point of view, offers subepithelial layers of the cutis an optimal tissue reaction in direction to isolate and fix the transponder.

EPIDEMIOLOGICAL STUDY OF RAW MILK STAPHYLOCOCCAL CONTAMINATION

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The paper present the results of the research on the dynamics of staphylococci positive samples in raw milk obtained from farms and from individual producers in a six years period (2000 - 2005). The staphylococcal positive samples incidence varied according to source of t he samples, being higher in the case of samples obtained from farms and lower in the case of samples obtained from individual producers. The season influenced the positive samples incidence, the number of positive samples being higher in high temperatures months. The prevalence of staphylococcal positive samples presents a descending dynamics along the studied period . The relatively high incidence of staphylococcal positive samples impose some hygiene rules regarding the raw milk collecting process.

THE IMPACT OF THE ACTIVE POPULATION SIZE AND STRUCTURE ON SELECTION EFFECT IN MOET BREEDING PROGRAMMES

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The aim of this study was to establish the influence of the size and the structure of the population on the genetic efficiency of Moet breeding programme. The result of modeling suggests that in the activity of genetically improvement of dairy cattle, it is not justified to use very large active population, as the obtained extra genetic progress couldn't compensate the supplementary costs to reach it. Even if the increase of active population from 5000 up to 150.000 cows is beneficial for the annual genetic progress ($G=2.0463-3.1753\%$, in case of optimum structure), the increase of selection effect is not the same, as more than about 50.000-60.000 cows have the tendency to have a limited genetic progress. For all sizes of active population taken into account when modeling (5000-150.000 cows), the annual genetic progress registered an increasing evolution together with the participation increase of Elite groups (Nucleus). In this way, in case of an optimum size of active population of 50.000-60.000 cows, $G=2.4683-2.5118\%$ when the structure is 30%Elite: 70%Testing and the maximum value $G=2.8361-2.8945\%$ was obtained in case of optimum structure 70%Elite: 30%Testing.

INTERDEPENDENCE BETWEEN LACTATION RANK AND SOME PRODUCTIVE TRAITS OF DAIRY COWS

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IMPACT OF THE INDUSTRIAL POLLUTION ON CHEMICAL, PHYSICAL AND BACTERIOLOGICAL PARAMETERS OF WELL-WATER IN A CHEMICAL UNIT INFLUENCE AREA

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The paper presents the results of a study done on the water quality from different wells in an area with chemical influence.

Water samples were tested for chemical and bacteriological parameters.

It was determined that physico-chemical and bacteriological parameters of the water samples are: as main final products of the chemical unit, sulphates and chlorides hadn't exceeded the maximum admitted limit in all sampling points. The presence of ammonium in all samples indicates an impurification of underground water with organic waste. Nitrites presence in the underground water could be explained by the organic material, disintegration and also by stable products in nitrites evolution at basic pH. Maximum admitted concentration was exceeded by 1.6 times for nitrates, in 66% of water samples. Phosphates exceeded the maximum admitted limit by 1.9-4.6 times, in 50% of the total analyzed samples, as a result of washing water infiltration in the underground water (animal waste and household waste). CCO-Cr recorded an exceeding of 11-14 times beside the maximum admitted limit in all samples and all sampling points, that shows the presence into the water of a stable organic material. The great bacteriological amount in each sample and all checking points shows an impurification of underground water from unorganized sources. The great bacteriological amount in each sample and all checking points shows an impurification of underground water from unorganized sources. The modification of chemical, physical and bacteriological parameters of well-water in the analyzed area is not a reason of the oil industrial processing.

Key words: industrial pollution, well-water

RESEARCHES CONCERNING THE CHEMICAL, PHYSICAL AND BACTERIOLOGICAL PARAMETERS OF WATER IN THE DAMBOVNIC RIVER

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Facultatea de Medicină Veterinară București

The paper presents the results of a study done on the quality of the water from Dambovnic River where there is a risk of pollution because of the petroleum processing plants. The conclusions obtained are: Sodium ions, sulphates, chlorides, nitrites and nitrates frame the water of Dambovnic river along all the monitored way in the first and the second quality categories depending on the sampling points. Phosphates framed the water samples in the third quality category, that shows the trend of eutrophism of the river water. Phenols frame the Dambovnic river water in the first quality category, for the majority of sections, excepting Suseni and Clejani section, where the established values framed the water in the third quality category. Nitrates ions concentration framed the river water in the first and the second quality category. Nitrites were in the river water over the maximum admitted limit of the first quality category in Suseni and Răciu section. In the river water there is a big content of organic material, heavy biodegradable, along the entire river, so the water is in the third quality category. From the bacteriological point of view, the Dambovnic river water is framed within the first and the second quality category.

Key words: chemical, physical and bacteriological parameters of water in the Dambovnic river

HEMATOLOGICAL AND BIOCHEMICAL CHANGES CAUSED BY ACUTE PANCREATITIS IN DOG

D. MORAR

The study was made upon a group of 15 various breed dogs, with ages between 6 months and 10 years old, diagnosed with acute pancreatitis. Hemogram revealed a hemoconcentration form reflected especially upon the increase of hematocrit with over 55% and of the erythrocyte number over the value $8.5 \times 10^6 / \text{mm}^3$, in 67% of the dogs affected by pancreatitis. The leukogram revealed a moderate leukocytosis, leukocyte number overtaking the value of $17 \times 10^3 / \text{mm}^3$ in 70% of the cases. In 73% of all dogs, the activity of seric amylase was over three times higher than the maximal physiological value, while 14% presented normal values. Seric lipase, a predominantly pancreatic enzyme, had values between 186 – 3791 U/L, overtaking the normal seric level in 87% of the cases. Seric activity of the hepatic transaminase (AST/GOT, ALT/GPT) increased moderately in 80% of the dogs. Urea and creatinine recorded increases over the superior physiological limit in 73% of the cases.

PARAINFLUENZA`S MORPHOPATHOLOGICAL CHANGES IN CATTLE KILLED BY NECESSITY AND ASPECTS RELATED TO THE HISTOPATHOLOGICAL DIAGNOSIS OF THIS DISEASE

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Bovine parainfluenza is an endemic, virotic infectious-contagious disease that affects especially young cattle, characterized by acute evolution, fever and respiratory disorders, and in the case of adult cattle, by subclinical evolution. The disease is also known as paraflu, bovine rhinopneumonia, shipping fever, etc., being part of the complex of bovine respiratory diseases with a mixed etiology, in which we may also include various abiotic and biotic factors, frequently some pneumotrope viruses and *Pasteurella haemolytica*, with different serotypes and, more rarely, *P. multocida* (1, 3, 4, 7, 9, 13).

Parainfluenza is currently known worldwide affecting domestic and wild ruminants. It produces important economic losses through a high mortality of young cattle under intensive systems (the mortality could be 20%), but also a delay in development and the decrease of milk and meat production in affected animals (3, 8, 12).

Nowadays, shipping fever is considered mainly a *Pasteurella* based pneumonia caused especially by *Mannheimia haemolytica*, rarely by *P. multocida* associated with some pneumotrope viruses, among which is virus PI-3 (5, 7, 10, 15). The main favoring factor is represented by animal transportation on long distances, by feet or by train, like in the U.S.A. (7). Parainfluenza is a stable endemy which appears under intensive and semi intensive conditions. Parainfluenza is not framed within the major zoonoses. However, there were some cases of infections in children, with strains of parainfluenza bovine virus (PI-3) (14).

Key words: bovine, type 3 parainfluenza, hystopathological diagnosis

USING YEAST *RHODOTORULA RUBRA* IN HENS FEEDING

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The effect of yeasts, *Rhodotorula rubra* in feed on productive performance of 300 Roso SL layers aged 32 weeks, assigned to three randomised groups (one control and two experimental groups) was tested. The diets were isocaloric (2750 kcal/kg metabolisable energy) and isoprotein (17.5% crude protein), providing 1% lysine, 0.75% methionine + cystine, 0.20% tryptophan. The use of *Rhodotorula rubra* yeast in layer diets did not affect adversely layer performance. *Rhodotorula rubra* yeast influenced significantly yolk pigmentation, which enhanced according to the dietary level of the protein biomass. Yolk pigmentation was significantly influenced by the dietary level of *Rhodotorula rubra*: 16.7% higher pigmentation for the 1.5% dietary level and 21.7% for the 3% dietary level. After *Rhodotorula rubra* was removed from the diet, the prior dietary level influenced significantly the length of the period of yolk pigmentation stabilisation

Key words: *Rhodotorula rubra*, hens feeding

CONTRIBUTION TO THE MORPHOLOGICAL STUDY OF GLOMERULONEPHRITIS AT DOG

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Membranous glomerulonephritis is an unspecific lesion due to the stocking of circulant immune deposits, very discrete, on the epithelial surface of the glomerular base membrane and in an initial phase without inflammatory phenomenon, reason for which the lesion can be called glomerulonephritis.

In the present paper present the results of a study done only for 19 cases which presented at histopathological exam different forms of glomerulonephritis. Glomerulonephritis were found mostly at histological level, being more frequent at adult animals and having forms of manifestation mainly hyperplastic: membranous glomerulonephritis

Key words: glomerulonephritis, dog

IMUNOHISTOCHEMICAL TECHNIQUE FOR PUTTING IN EVIDENCE THE FIBROUS INTERSTITIAL NEPHRITIS AT DOG

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PCNA is a protein associated to AND – polimerasis that plays an important role in cell proliferation being put in evidence at nucleus (not nucleols) in t he cellular cycle development. PCNA is remarked especially under a granulated, diffuse aspect of the cell nuclei where it already started the DNA synthesis for cell proliferation. The evidencing of PCNA through imunohistochemistry technique confirmed the histopathological diagnosis of fibrous interstitial nephritis.

The level of PCNA varies durin the phases of cell cycle of fibroblasts. So, at the level of nucleus, i tis raised at the end of G1, just before DNA synthesis, becoming maximum during S phase and decreasing in G2 phase and M.phase. So, its level is correlated directly with the cell proliferating rate of fibroblasts and DNA synthesis

Key words: imunohistochemical technique, fibrous interstitial nephritis, dog

WHITE CELLS REACTIONS IN CATS DURING THE ONCOPATIES' PROCE SS

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The paper present the white cells reactions in cats diagnosed with different oncopaties. The investigated cats with ocopaties present: 40% leukopenia, 40% normal values of white blood cells, 20% leukocytosis. Leukopenia is owned to the low values of all WBC cellular series. The cats with normal total leukocyte values have a normal leukocytary formula or a slow increased neutrophil granulocyte values. Leukocytosis is owned to the rise value of neutrophil granulocytes.

Key words: white cells, oncopaties, cats

PHARMACOTHERAPEUTIC STUDIES REGARDING THE PATHOLOGY OF SNAKES

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DANA T P LOAG , MIMI DOBREA

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The observations regarding the pathology of ophidians were performed in Bucharest Zoo, during several years (2000-2005).

Reptile species that we observed were represented by crocodiles, European water turtles, Florida water turtles, Dobrogean land turtles, Gecko lizards, Asian tiger pythons, Burma pythons, Royal pythons, Boa constrictors, Boa rainbow, *Natrix natrix*.

This paper wishes to be a study about the treatments effectuated in captive snakes, in less usual conditions, on a limited number of individuals, considering the low incidence of snakes in specialized units

Key words: snakes, parmacoterapy

ESTABLISHING PELVIMETRIC PARAMETERS BY COMPUTER TOMOGRAPHY IN BOXER BITCHES

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The pelvimetric parameters by computer tomography in boxer bitches were determined, measured and interpreted.

Key words: pelvimetric parameters, computer tomography

EFFECT OF CLIMATIC CONDITIONS OF BIRTH'S MONTH ON HIP SCORES IN DOGS

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Canine hip dysplasia (CHD), a condition described first by Schnelle in the mid 1930's, is an inherited developmental orthopaedic disorder of the hip joints (7). Numerous studies have been carried on the different aspects of the diseases such as biomechanic of hip joint, pathogenesis, various diagnostic and treatment techniques of CHD (1, 11, 12, 13). However, there are still different opinions as to causes of CHD and the most effective methods for diagnosing and preventing it. There is a general agreement that the CHD is a polygenic trait influenced by environmental factors (15). Some of genetic and environmental factors have been studied include body size, growth rate, nutrition, in utero endocrine influences and muscle mass (3, 11, 16). The roles of temporal effects on development of CHD have been also suggested, for example the effects of month (4) or season (10) of birth, and age of the animal when it is examined (10, 14, 18, 19). In the effects of birth month of dogs on the hip score, climatic condition as bright sunshine duration, mean temperature, humidity, and average days with snow fall and frost have not been evaluated. However, these kinds of knowledge are important to determine the risk group of dogs for developing CHD and to control the disease through breeding programs. The aim of the study was to record whether any effect of the climatic condition of birth month on hip score exist or not in dog.

Key words: dogs, hip scores .

THE EFFECTS OF THE TRIPLE PELVIC OSTEOTOMY ON THE ANATOMICAL STRUCTURES AT THE PELVIC REGION

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The triple pelvic osteotomy (TPO) has been used in young dogs with hip dysplasia. Most commonly reported complications after TPO are pelvic canal narrowing and loss screw fixation.^{1,2,4,6,8,10} Also the damages of the sciatic and cranial gluteal nerves as well as obturator artery are recorded.^{1,2,4,9,10} The reported complications seem too few in comparison with the anatomic complexity of region and the major surgical procedure. It may supply some advantageous for surgeons when they know the effects of the TPO on the anatomical structures. This study, therefore, was focused on changes of the anatomical structures of the pelvis, except the bones, after the TPO.

FUNCTIONAL EVALUATION OF ANESTHESIA WITH PROPOFOL IN ACEPROMAZINE PREMEDICATED DOGS

Schuszler Larisa, C. IGna, M. Sab u

In ten geriatric dogs, which are coming for calculus removal, it was evaluated adverse reaction and quality of propofol narcosis after acepromazine premedication. The heart rate was increased in the first ten minutes above the preinduction values, respiratory rate and body temperature decreases progressively, duration of recumbence was $45 \pm 3,5$ minutes. Apnea, cyanosis and padding occurred infrequently. The propofol administrations, after acepromazine premedication, assure a rapid induction and a smooth rapid recovery with rare manifestation of adverse effects.

ERYTHROCYTARY MEMBRANE RESISTANCE DUE TO LEAD ADMINISTRATION IN RATS ALONG THREE GENERATIONS

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The purpose of the present study was to make obvious the benefits of lead at rats, in LOAEL dose, for 3 generations, for the osmotic resistance of erythrocytary membrane.

The study was unfolded along 3 generations (P/E₁, F₁/E₂ and E₄, F₂/E₃ and E₅) in 2 ways, the differences being in the period of exposure at females (E₂ and E₃ – in the pregnancy period; E₄ and E₅ a month before mating and during the pregnancy period).

The administration of lead at LOAEL level has determined the lose of membrane resistance and the growing of the haemolysis degree, changes that can be the consequence of the oxidative stress inducted by lead, for the whole generation, more obvious and directly related with the p eriod of exposure of the phenols, at the 3rd generation pack where, the effect of the membrane resistance can also be the consequence of genetic material transmitted from the lead intoxicated parents.

Key words: osmotic resistance, lead, rats.

ELECTRONOMICROSCOPICALY IDENTIFICATION OF RABBIT HAEMORRHAGICAL DISEASE VIRUS

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. Electronmicroscopy emphasize rabbit haemorrhacal disease virus in lung and liver after experimental infections prove de diagnosis of Hemorrhagic disease of rabbit.

There were used 2 procedures:

- ◆ Direct negative colored method, obtained from lung and lives from rabbit experimental infected with rabbit haemorrhacal disease virus. (R.H.D.V.)(4).
- ◆ Positive colored method for detection ultrastructural modification from lungs and liver induced by R.H.D.V.

For both procedures was used a - 125 Sumy EM electronmicroscop. In lung and liver suspension from rabbit experimental infected , electronmicroscopy proved uniform, isometric, unenvelopated viral particules, characteristic to calicivirus family.

Key words: electronmicroscopy, lung, liver.

TIME AND INTENSITY OF IMMUNE RESPONSE OF SHEEP IMMUNIZED WITH THE IMMUNOGEN MYCOPLASMA

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The researches were made on two sheep group, out of wich one was vaccinated su bcutaneous, in the beginning of the experiment and 21 days after, against sheeps *Mycoplasma agalactiae*. The antibodies immune response was determinate using the indirect immune enzyme test, on the moment of first vaccination and at 7, 14, 21, 28, 42, 65, 80 and 90 days after.

The test results show that the vaccine against sheeps *Mycoplasma agalactiae* induced a positive and important anti-*Mycoplasma* antibodies production. So, at the vaccinated animals, the antibodies concentrations grow after first vaccination, amplifies after the second one, touches the maximum level at 42 days after and then decrease gradually, recording values comparable with those from primary immune response even at the end of the experiment.

Key words: immune response, sheep, mycoplasma

THE BIO-MOS EFFECT ON ANTIBODIES IMMUNE RESPONSE ON SHEEP

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Two groups of sheep, out of which one nourished with Bio-Mos (Alltech), were vaccinated against sheep *Mycoplasma agalactiae* and revaccinated after 21 days. The humoral immune response was evaluated through the indirect immune enzymatic test (ELISA), at the moment of first vaccination, and then at 21, 42, 63, 84 and 105 days after.

The serological tests, made on blood samples from each animal, shows that the Bio -Mos supplemented in food (1 kg Bio-Mos/1000 kg feed), is having a positive and important influence in production of anti-*Mycoplasma agalactiae* antibodies, especially after the second vaccination. About the production of anti-*Mycoplasma* antibodies in control group, the tests results were inferior to the experimental group, even that the antibodies concentrations were high enough in both groups.

Key words: the Bio-Mos, antibodies immune response, sheep

**ALANINAMINOTRANSFERASE AND ASPARTATAMINOTRANSFERASE
ACTIVITY FROM FRESH AND FREEZE – THAWED DOG SEMEN IN DIFFERENT
GLYCEROL CONCENTRATIONS**

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The aim of this study was to compare the effect of different concentrations of glycerol for dog semen freezing, on post-thaw motility parameters, plasma membrane functional integrity, morphology of sperm cells and transaminase (ALAT and ASAT) activities in seminal plasma.

In the fresh seminal material, the spermatoc fraction shows the highest activity both for the ALAT and the ASAT.

The application of cold shock determines a marked increase of the enzyme activity in the seminal plasma.

The highest values of the ALAT and ASAT activities are recorded after using cryoprotector in 0.25 M concentration;

The cell membrane alteration is the lowest in glycerol 1M use, in t his case the lowest activities of ALAT and ASAT are correlated with the highest semen quality

Key words: dog, semen, glycerol, alaninaminotransferase, aspartataminotransferase, cryopreservation.

PRESENT ASPECTS REGARDING INTERLEUKINS

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The remarkable progresses obtained in the last few years by the basic immunology refer mainly to the cognition of the molecular mechanics involved in the initiation and development of the immune reaction of the body. In that context, there are pointed out major contributions regarding the structure and functions of the interleukins and of their receptors. The way that the transduction of the signals is developed and the activity of the transcription at the nuclear level are deciphered, so that the message represented by the interleukins is materialized into biological answers with multiple consequences for the immune status and the organism as a whole. The description of interleukins recently identified, 33 so far, helps to complete the complicated scene of the molecular interactions included in the immune system.

Key words: *cytokines, description of interleukins*

ANATOMIC-CLINIC ASPECTS PRIMITIVE TUMORS (MEZOTELIOMAS) AND PERICARDIUM METASTASES IN DOGS

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Summary

The authors present an anatomoclinic study regarding some dogs recent investigated in Clinic of Internal Pathology. Based on cyto-morphologic pericardial liquid examination, was established the positive diagnosis and the differentiated one in cases of "serous cancers", as compared to the acute or chronic inflammatory status at the same level.

Key words: mesotheliomas, pericardium metastases, pleural fluids, pericardium.

ACUTE PHASE PROTEIN RESPONSE IN DOGS WITH ASPIRIN INDUCED GASTRIC MUCOSAL INJURY

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In this study, we used a canine model of acute injury of gastric mucosa by using a single oral dose administration of aspirin; we monitored endoscopic findings, serum acute phase proteins, total leucocyte counts and serum iron concentrations for to establish the diagnostic significance of acute phase proteins in gastrointestinal disorders.

The results of this study suggest that; with increase in CRP, SAA, haptoglobin, fibrinogen concentrations and WBC numbers, a rapid acute phase response occurs shortly after gastric mucosal injury induced by aspirin ingestion. Furthermore, APPs are more reliable than the WBC numbers as the increase determined was within the physiological limits. In monitoring the gastric injury; measuring the concentrations of APPs could be used together with gastroscopy.

ARTERIAL LESIONS IN SHOCK STATES AT DOG AND CAT

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Morphological (histological) investigations were made on aorta fragments, femoral artery and mesenteric artery taken from 26 dog corpses and 11 cat corpses, animals who died after a hypovolemic, anaphylactic, septic, cardiogenical shock.

Arterial diseases observed can be framed in two evolutionary categories: chronic (preinstalled) and acute (due to shock state).

Chronic lesions consist upon collagenoses in all vascular coats. Focused collagenosis form, with morphological aspect of the healed (closed up) atheroma.

As acute lesions, can be observed changes mainly intimal and underintimal: epithelial take-off, cubic formation and light endothelial hyperplasia, welding of the plasma in the intern elastic limitant.

Key words: **arterial lesions, shock states, dog, cat**

RESULTS REGARDING THE TRANSFUSION IN DOGS

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The transfusion represents a therapeutically emergency often met in dogs: massive hemorrhage, babesiosis, Zn intoxication, chronic anemia, autoimmune anemia and so on. Due to the multiple blood types in canine specie and the adverse reactions, the transfusion is still a skeptical method. In many countries the transfusion is a current method in medical practice for pets. The paper presents the cases with successful treatment through transfusion.

Key words: transfusion, dogs

MORPHOLOGICAL ASPECTS OF THE ARTICULAR CARTILAGE IN THE BOVINE DEGENERATIVE JOINT DISEASE

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There were examined articular cartilage samples from bovine femoral head and condyles, 1 - 14 years old. The samples were processed by usual histological and histochemical staining techniques. The observed morphological aspects were similar to those emphasized by specialized literature for primary degenerative joint disease in other species. There were observed concavities, fibrillations, small rough areas and necrosis areas on macroscopic examination and chondrocytic clones, extracellular matrix alteration, cartilage fissures, fragmentations and erosions, subchondral bone exposure, epiphyseal bone rarefaction, tidemark multiplication on microscopic examination. The main localization of lesions was on the periphery of the articular surfaces and the severe forms of osteoarthritis were noticed in older animals.

Key words: articular cartilage, bovine, degenerative joint, disease, morphology

**A COMPARATIVE STUDY OF THE MORPHOLOGICAL ASPECTS OF THE
ARTICULAR CARTILAGE IN DOGS AND BOVINE DEGENERATIVE JOINT
DISEASE**

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Degenerative joint disease (DJD), known as osteoarthritis, is a chronic non-inflammatory disease characterized by the degeneration of the articular cartilage, with frequent generation of osteophyte and synovial alteration (1, 2, 3, 4). The differences or the propinquities between the two species concerning specific features of altered cartilage offer a base for new approaches and for better understanding of the specific pathogenesis and therapy.

PARTICULARITIES CONCERNING THE MORPHOLOGY OF THE STOMACH AND INTESTINE IN OSTRICH

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As in others animals of economic interest, at ostrich the production is correlated with that qualities of the food and those are dictated by the particularities concerning the digestive tract. Because in scientific literature there are only few data regarding the anatomy of the ostrich was taken in consideration this subject that gives interesting items less known and really undiscovered.

Key words: ostrich, stomach, intestine morphology

APPLICATIONS REGARDING THE BLOOD TRANSFUSION THERAPY IN EXTREME CLINICAL STATES IN DOG

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The paper present the results of blood transfusion in some dogs. Blood transfusion is performed as a treatment for various medical conditions, such as massive blood loss due to trauma, surgery, shock and other conditions in which tissues of the body are not adequately oxygenated, and where the red cell producing mechanism (or some other normal and essential component) fails. A dog can receive more than one transfusion from another dog by keeping the same donor. If the dog has received at least one transfusion, any subsequent transfusions must be cross matched to insure compatibility. Generally, we use whole blood immediately or stored in specific conditions. Transfusion rate depends on the status of the recipient. In stable, normovolemic patients we recommend a rate of 0.25-0.5 ml/kg. Possible complications of blood transfusion are immunologic complications (acute immunologic reactions and delayed immunologic reactions) and non-immunologic complications. Blood transfusion is an important routine practice in veterinary medicine. In veterinary critical care and emergency medicine, transfusion therapy has taken an increasingly important role in the life support of an animal.

Key words: blood transfusion, blood typing, dog

ASPECTS ON THE MORPHOLOGY OF MAMMARY LYMPHATIC SYSTEM IN SHEEP

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The papers present a study performed on 20 sheep individuals of various age, breeds and status of animal maintenance to evidence some aspects on the morphology of mammary lymphatic system to complete the existed data. The results show that the lymphatic vessel can be grouped from the topographical point of view in two categories: subcutaneous lymphatic collector and deep vessels originated in the parenchyma. The subcutaneous lymphatic collectors are originated in the lymphatic plexus on the basis of the mamilla and they are larger than the vessels on the parenchyma. There is symmetry between the lymphatic vessels of the two udder halves. Although not mentioned in the field literature, the anastomoses between the large lymphatic vessels have been noticed

Key words: mammary lymphatic system in sheep

MONITORING OF FEEDS SELENIUM STATUS IN THE VEST REGION OF ROMANIA

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Three hundred and eighty eight samples of feeds from households covering 60 localities in the west region of Romania were collected and analyzed for selenium (Se) content by spectrofluorimetry with 2,3-diaminonaphthalene. Only 3.9% of the samples analyzed were, in terms of the feed Se content considered appropriate (i.e. 0.15 - 0.30 ppm), within the normal range. The remaining 96.1% proved to be Se deficient, the results falling into the 0.001-0.202 ppm range. Consequently, the samples were divided into 3 deficiency groups based on the content recorded: severe for 0.69% (Se below 0.01 ppm), critical for 85.92% (Se in the 0.01-0.1 ppm range) and marginal for 10.42% (Se in the 0.1 -0.15 ppm range). Conclusively, the Dobrudja feeds may be said to be generally Se deficient which requires prophylactic and therapeutical measures to correct animal selenium deficiency.

Key words: selenium, feeds.