

**ECONOMIC AND ENVIRONMENTAL IMPACT OF THE INDUSTRIAL
TREATMENT OF CORPSES, SUPPRESSED PRODUCTS AND
SLAUGHTERHOUSE BY-PRODUCTS**

I. IBRU*, T. ABRAHAM -BARNA, M.K. PESCHEKE ****

*Faculty of Veterinary Medicine Timi oara, 119 C. Aradului

** Smithfield prod

Summary

In this work, we present the sanitary and economic importance of waste from a pig slaughterhouse, according to the E.U. classification and by supervising its industrial processing impact upon the environment. We also make a brief description of the economic value of the final product, value that is influenced by the conventional energy market. Beside the conclusion that there is a big amount of waste resulted, also influenced by market's dem and for meat, we may say that a remarkable part of this waste may influence favorable the society's economic balance without a major impact upon the environment.

THE GLOBAL AND SPECIFIC RISK OF AVIAN INFLUENZA RISK FOR ROMANIA

GH. ON ANU

Institute for Diagnosis and Animal Health

Summary

In the previous works, the true origin of avian influenza for wild birds and poultry in Romania has been demonstrated as well as the itinerary of risk factors and concentration and mixing sites for migratory birds involved in long-distance spreading of avian influenza (Ontanu, 2006, Ontanu and co., 2007). This was performed by a combination of bird census data and bird ringing data received from Romanian and Ukrainian Ornithological Societies.

The areas of concentration and mixing birds are used as migration stopovers by birds from different breeding and wintering areas and different flyways (Wernham et al. 2002). Primary and secondary sites have been distinguished to highlight those locations known to consistently hold large concentrations of waterbirds amongst the many wetland sites that constitute mixing areas from migratory waterbirds.

The region encompassing the Black Sea and Caspian Sea, in particular, represents the most important mixing and concentrating area for birds, notably species of Anatidae, from several flyways, and a region in which flyway boundaries are indistinct and where dispersive movements occur.

Reports of infection in migratory birds mainly include those species listed in the orders Anatidae (ducks, geese and swans) and Charadriiformes (waders and gulls). Based on data received from Romanian Ornithological Society, the Danube Delta has been recognised the most important area of concentration and mixing migratory birds. The flyways for micro-migrations inside the Romanian territory have been also very clearly defined. Taking into account this information, the rearing system for poultry in Romania and assessing more than 60 lakes on the whole territory of Romania, related with the waterbirds concerned, the risk areas for occurring and spreading of HPAIV have been very clearly established. It is useful for veterinary services, in order to apply a special surveillance strategy for these areas, to be able to early react to the potential risk of avian influenza.

Key words: risk assessment, avian influenza

POSTVACCINATION SEROSURVEILLANCE ON FOOT AND MOUTH DISEASE (FMD) BY USE ELISA FOR DETECTION THE ANTIBODIES AGAINST NONSTRUCTURAL PROTEINS – AN ALTERNATIVE TO STAMPING-OUT

GH. ONTANU¹, CR. APOSTU¹, M. GRUIA², CL. DIACONU¹

¹ Institute for Diagnosis and Animal Health

² National Sanitary Veterinary and Food Safety Authority

Summary

This paper work is the result of activities carried-out by the authors in the framework of a simulation competitive exercise with other 15 European countries, based on different scenarios on occurrence of FMD. FMD virus infection induces antibodies both against structural and non -structural virus proteins. A high purified vaccine doesn't involve antibodies against FMD virus non -structural proteins. On this base, the use of already performed ELISA can discriminate between infected and vaccinated animals. Specific legislation on the control of FMD foreseen the application of stamping -out, measures in the protection zone and completion of all compulsory measures after 15 days, measures in the surveillance zone and completion the mandatory measures after 30 days and regain the status of FMD free country without vaccination, after 3 months from the extinction of the last outbreak and completion of all measures imposed in accordance with NSVFSA Order 43/2006. When the risk of disease spreading increases, the legislation allows the use of protection vaccination, without stamping -out and regaining the status of FMD free country with vaccination, after 6 months from the lifting the measures for the last outbreak and the application of all legal measures. Legislation also allows the use of suppressive vaccination (vaccination-to kill), killing the vaccinated animals, setting up all legal measures and regaining the status of FMD free country after 3 months from the extinction of the last outbreak, postvaccination serosurveillance and the application of all legal measures. The application of stamping-out approach in the big pig and bovine holdings, to control FMD, created over the world major crisis and became almost inoperative. Since vaccinated animals may become subclinically infected with FMD virus, following challenge exposure, it is necessary either remove all vaccinates to kill them, or to detect and remove vaccinates in which virus is circulating or has established persistent infectious (vaccinate to live), in order to regain the most favoured trading status of FMD free country without vaccination. The later approach can be supported by testing vaccinated animals for the presence of antibodies to certain non-structural proteins of FMD virus and we succeed to describe the most suitable approach, in order to regain the free status for FMD, in a period of 3 months, compatible with stamping -out approach.

Key words: FMD, non-structural protein, antibodies, vaccination

INDICATORS OF STRESS AND STRESS ASSESSMENT IN DOGS

ALINA BODNARIU

Faculty of Veterinary Medicine Timisoara

Summary

The present study was aimed at evaluating the effect of acute stress on the behaviour and physiology of dogs. Observations were made on entire dogs admitted for neutering in various practices from the UK and housed in individual cages. Observations comprised a 10 minute behavioural observation and the measurement of respiratory rate and heart rate for each dog. Female dogs were more likely than males to display behavioural and physiological indicators of stress. Only previously kennelled dogs were noted to perform stereotypical behaviours. Rescue dogs were found to be more likely to display physiological indicators of stress and to have significantly higher heart rates than privately owned dogs.

Key words: behaviour, dog, stress, stress, stress indicators

SANITATION CONTROL IN A MEAT PROCESSING UNIT

MIHAELA DIMA ROBECI

Faculty of Veterinary Medicine Timișoara, Calea Aradului no. 119

robeci_mihaela@yahoo.com

Summary

Each producer is responsible for the food safety of the products and for the hygiene of the spaces and the equipment that he has in administration in order to carry on the activity throughout the technological flow.

Meat as a raw material may be an important source of contamination for the products obtained by its processing, because it can infect continuously, if the sanitation methods in the meat processing units are superficially or wrong applied (1).

In the present paper it was analyzed the hygiene status in a meat processing unit, in Rm. Valcea in order to appreciate the way the lack of hygiene may be a microbiological contamination source for the final products obtained in this unit.

In the Strategic Actions Plan for 2007, elaborated by the National Sanitary Veterinary Agency, it is included the microbiological examination of the processed products, as well as the work surface that come in contact with the food products (3). Beside all these analysis, the food business operators have to carry out selfcontrol analysis on the general hygienic conditions inside the units, by the implementation and the maintaining of some permanent procedures, elaborated according to the Hazard Analysis and Critical Control Points.

This modern method of approaching technology in operational vision corresponds with the imposed criteria by the HACCP, which assures the permanent monitoring of the elements and the major epidemiological risk stages.

THE ROLE AND IMPORTANCE OF LABORATORY ANALYSES FOR FOOD SAFETY IN A MEAT PROCESSING UNIT

MIHAELA DIMA ROBECI

Faculty of Veterinary Medicine Timi oara, Calea Aradului No. 119
robeci_mihaela@yahoo.com

Summary

The unit we referred to in this paper, is a meat processing unit, which is supervised by me sanitarly and which is authorized for intracommunitary exchanges by Order no 276 from the 29th of November 2006, it's certified for The Management of Quality System and for The Management of Health and Work Security System, corresponding to ISO 9001 standards and to ISO 22000, and the final audit for certification was on the 19th December 2006.

**INTERNATIONAL VETERINARY ORGANIZATIONS
-ROLES AND OBJECTIVES-**

C.F. PANDELA

Now in the world exist many international organizations which propose promote and defend veterinary wrights. From the most popular organizations in this field, I wish to present the World Veterinary Association and World Organisation for Animal Health.

**HOME AND DOMESTIC STOCK - A ARCHAEOZOOLOGICAL
PERSPECTIVE ON SOME POSSIBLE EXPLOITATION PATTERNS IN
ROMAN PERIOD**

A. GUDEA, F. STAN, ANTONIA SOCACIU, A. DAMIAN

Faculty of Veterinary Medicine Cluj-Napoca,
Department of Fundamental Sciences, Comparative Anatomy

Summary

The present paper is elaborated in a much larger context deriving from the importance of Romanization on the Dacian territories (Gudea 2007) and tries to reveal some subtle economical aspects in direct relationship with home related and day-to-day activities. More precisely, everyday living is connected with the animal breeding as a main source of food. From this point on one can reveal occupational aspects that can be revealed also via archaeozoological studies.

The present study tries, on the basis of archaeozoological data from various roman sites on the territory of Dacia, to reveal the site type-dependant exploitation models of the animal resources.

LACTATING SOWS' MAMMARY GLANDS' FUNCTIONALITY AND SUCKLING PIGLETS' GROWTH PERFORMANCE

H. S. R. NDAN, C. MANEA, I. PETROMAN, R. S. R. NDAN, OLGA TOMA,
M. S. R. NDAN, L. UNGURA

Faculty of Veterinary Medicine Timisoara

Summary

The experiment was made on 2 phases:

In phase one mammary glands functionality was assessed for 96 sows at 7, 14, 21 and 28 days of lactation.

Mammary glands were classified as constant suckled, (GMSC) inconstant suckled (GMSI) and non functional (GUN). GMSC and GMSI were related to the number of suckling piglets in order to estimate the utilization coefficient correlated with their anatomic position.

In phase two 53 sows were monitored for 7 lactations in order to establish if the number of weaned piglets for each lactation limits the number of functional mammary glands in the next lactation.

During lactation the utilization coefficient varies between 1.10 and 1.16 (used mammary glands/piglet); the mammary glands utilization decreases from the pectoral to the abdominal mammary glands. The number of weaned piglets in a lactation does not influence the number of functional mammary glands in the following one.

Key words: sow, functional mammary glands, percent of utilization.

**INTESTINAL ABSORPTION SURFACE IN MINK, ESTIMATED USING
MICROMETRIC MEASUREMENTS**

**A. DAMIAN, C. LIPOVSCHI-CHELE ANU, IOANA CHIRILEAN, AL.
GUDEA,
F. STAN, F. TUNS, V. RUS, ANTONIA SOCACIU, O. NEGREA**

Faculty of Veterinary Medicine Cluj Napoca

Summary

Intestinal anatomical – histological investigations were performed on 25 mink (*Mustella vison*) corpses. Dissection aimed to observe the intestine topographical situation, then the delimitation of small and large intestine segments.

Samples for histological preparations were harvested during the dissection. These were microscopically examined, results being differently interpreted, from a case to another.

In order to estimate the absorption surface of digestive tract, the realized preparations were analyzed using micrometry.

**INTESTINAL TRANSIT IN MINK OF NURSERY
- ANATOMOHISTOLOGICAL STUDIES -**

A. DAMIAN, V. MICL U , *G. PREDOI, **S. POP, F. TUNS

Faculty of Veterinary Medicine Cluj-Napoca

* Faculty of Veterinary Medicine Bucharest

**Praxis Tierarzt Obergunzburg Germania

Summary

In the technology of raising nursery minks, their feeding must be permanent, as there are no limited periods time. In the process of finding an explanation for these feeding and intestinal transits specific features there were made morphologic and structural investigations on 40 common corpses from the Gilau Nursery, on the segments of the digestive apparatus. The characteristics and specific features as concerns the species taken in to account, were observed. The data were corroborated with digestive or physiological parameters. He pertinent structural explanations were a substratum of specific features of the intestinal transit in nursery minks.

**HISTO- AND ULTRASTRUCTURAL ASPECTS CONCERNING RENAL
CORPUSCLE IN *COTURNIX COTURNIX JAPONICA***

**IULIANA CAZIMIR¹, N. CORNIL¹, TEFANIA PREDOI¹, DACIANA
MARTA², CRISTINA CONSTANTINESCU¹**

¹Faculty of Veterinary Medicine Bucharest

²“Victor Babes” Institute Bucharest

Summary

The histostructural and ultrastructural details offered by the specialty literature concerning the aspect of the renal corpuscles are more concentrated on mammals, while the researches regarding the avian segment are moderate, tackling in general with the species *Gallus domesticus*. The description of the glomerular capsule, along with the particularities of the glomerular capillaries and that of the juxtaglomerular apparatus creates the possibility of highlighting some characteristics of species, in their dynamics, by age, starting with the first day of life and ending with elements characteristic to adult birds.

Key words: renal corpuscle, podocyte, juxtaglomerular apparatus

**THE PARTICULARITIES OF BLOOD CIRCULATION IN THE MAMMARY
GLAND OF BIG RUMINANTS AND THEIR PRACTICAL IMPLICATIONS**

**ANTONIA SOCACIU, A. DAMIAN, IOANA CHIRILEAN, AL. GUDEA, F.
STAN**

University of Agronomical Sciences and Veterinary Medicine,
Faculty of Veterinary Medicine
Calea Măntur 3-5 Cluj-Napoca

Summary

The study was done on 19 mammary glands taken from 11 cows and 8 buffalo cows, the property of slaughter houses from Cluj County. These cows and buffalo cows were sacrificed for commercial purposes and the mammary glands were collected by severing them from the body by cutting the udder's skin, the blood vessels and the median suspensory ligament. The mammary glands were then injected through a tube introduced in the vessels' lumen. The material injected was obtained by mixing the commercial product Palux with red dye and thickening agents. The already injected glands were then kept in 2% formaldehyde solution for 24 hours, after which they were dissected.

**COMPARATIVE ONCOLOGY
Review**

A.I. BABA

Pathology Department, Faculty of Veterinary Medicine Cluj -Napoca,
Moilor Str., No. 5-7

Summary

Comparative pathology has developed in time, as a natural process, the result of the study of human diseases, as well as of the diseases of living beings that surround man, either as production or companion animals. The pathological conditions were at first observed, then scientifically studied, compared between them according to their causative factors, and also compared between the different animal species, including humans.

Comparative oncology has developed, including two branches of activity: *spontaneous oncology*, for all animal species and humans, and *experimental oncology*.

Concerning the neoplastic tissue, given its morphophysiological complexity and the fact that it is a *non-self* structure, it can be assumed that there is a *genetic code specific for each tumor*, in the same way as it has been demonstrated that there is an irrepeatable genetic print for each human being. These issues will be clarified step by step, which will result into a unitary whole contained in an all-comprehensive definition, clarifying what we generically call *tumor disease*.

The term tumor or neoplasm defines a group of lesions characterized by abnormal tissue proliferations of the genetically modified cells, proliferations that exceed the dimensions and speed of all processes occurring in the case of regeneration, repair or inflammation.

Pathomorphologically, we define tumor disease as a process of progressive multiplication of cell elements, leading to the appearance of new ontogenetically differentiated tissue with peculiar properties, with a special metabolic activity, which influences in various degrees the general state of the organism. Cancer in a pluricellular living being is an irreversible cellular differentiation with biological autonomy, the neoplastic tissue escaping from the control of tissue homeostasis.

**MOLECULAR DETECTION THROUGH C.E.A.(CARCINO -EMBRIONIC-
ANTIGEN) OF DIFFERENT TYPES OF CANCER IN ANIMALS**

**EMILIA BALINT, N. MANOLESCU, DANA BRASLASU, T. LEAU,
AL. DIACONESCU**

Faculty of Veterinary Medicine Bucharest

Summary

The paper presents the results of the investigations of C.E.A. tumor marker presence in serum of dogs and cats, with different types of cancerous disease. The serum level of CEA depends on the specie, on the histological type of neoplasia , on cellular G and on the evolution time of the disease.

In our opinion, CEA has a 75% specificity, which makes it presently one of the most relevant tumoral markers on the market .

TUMOR INCIDENCE IN SLAUGHTERED BOVINES

L. MAROSFOI, A. I. BABA *, C. C TOI *

DSV Harghita, Progresului Street No. 14, Miercurea Ciuc,

marosfoi@gmail.com

* Pathology Department, Faculty of Veterinary Medicine Cluj -Napoca,
Mo ilor str., no. 5-7

Summary

There were examined 67 slaughtered bovines, 7 of them having different tumor types (10,44%), from this 6 were malignant tumors (85,71%). Squamous carcinoma with orbital localization was diagnosed in 5 cattle with the ages between 5-14 years old. Squamous carcinoma determined metastasis in 3 subjects, in the parotid, mediastinal and mesenteric lymph nodes. Microscopically all 5 squamous carcinoma presented a high malignity degree. Peritoneal epithelial type generalized mesothelioma was diagnosed in a 10 years old bovine. Microscopically were found metastasis in mediastinal and portal lymph nodes, in the liver and pancreas. Neurinoma or neurilemoma (schwanoma) was diagnosed in a 13 years old bovine, being localized between the right atrium and upper cava vein.

MORPHOLOGICAL STUDY OF TESTICULAR TUMORS IN DOGS

C. CATOI, R. MOUSSA, P. BOLFA, M. TAULESCU , O. NEGREA

University of Agricultural Sciences and Veterinary Medicine, Faculty of
Veterinary Medicine, 3-5 Manastur Street, 400372, Cluj-Napoca, Romania,
e-mail:cornelcatoiu@yahoo.com

Summary

We examined 9 cases of testicular tumors in the dog in the period 2000 – 2008: 4 cases were seminomas, 3 cases sertoliomas, 1 case hemangiosarcoma and 1 case leydigoma. German Shepard breed was most frequently affected (2 cases). The age of the affected dogs was between 6 and 9 years. From the examined dogs, 3 were cryptorchids.

CADMIUM IN SOME ORGANS AND MUSCLES IN WILD BOAR

I. M. CINIC, ALEXANDRA TRIF, F. MUSELIN

Faculty of Veterinary Medicine Timi oara

Summary

The study carried out on 14 wild boars (*Sus scrofa*) in two areas, one placed at 15 km from a very polluted area (Forest District C.M., county S.) and one known as a not polluted area (Forest district C, county A.), considered as "control" pointed out higher cadmium concentration in all samples (kidney, liver, heart, lungs, spleen, muscles) from polluted area comparative to "control" area but statistically assured only for kidney, spleen, and muscles, cadmium concentrations over the maximum permitted limits in kidney and spleen in wild boars from both studied areas, lower in liver, lungs, heart, muscles, kidney is a target organ for cadmium.

THE IMPACT OF POTASSIUM DICHROMATE (VI) INTAKE ON EXPOSURE AND MORPHOLOGICAL INTEGRITY BIOMARKERS (CHROMIUM LEVEL AND WEIGHT OF SEXUAL ORGANS) IN FEMALE RATS

SNEJANA PETROVICI, ALEXANDRA TRIF, EUGENIA DUMITRESCU, JELENA RANKOV

Faculty of Veterinary Medicine Timisoara

Summary

The study carried out on 28 white Wistar female rats exposed for three months to potassium dichromate in drinking water (25, 50 and 75 ppm) pointed out: significant increase of chromium level in ovary comparative to control group and directly correlated to chromium exposure level, but not strictly proportional; significant increase of chromium level in uterus with Fallopian tubes comparative to control group and in direct correlation to chromium level exposure; ovary weight increase only at the highest exposure level comparative to control group and in direct correlation to exposure level; increase of uterus with Fallopian tubes weight comparative to control group (exception the group exposed to the lowest level) and in direct correlation to chromium exposure level.

STUDIES REGARDING THE DEPLETION OF DOXYCYCLINE RESIDUES IN PIG MEAT AND ORGANS

MARIA CRIVINEANU¹, V. TRIFAN², GH. PARASCHIV², V. NICORESCU¹

¹Faculty of Veterinary Medicine Bucharest , 105 Splaiul Independen ei, 5th
sector, Bucharest, maria_crivineanu@yahoo.com

²Crida Pharm S.R.L., 2 Intr. Vagonetului , 6th sector, Bucharest

Summary

The drug residues met in animal origin food products consist in basic compounds, derivatives and impurities associated to veterinary drugs used for therapeutic or economic purposes during animal's life.

The aim of this research was to detect doxycycline residues in pig meat and organs after the therapeutic use of Doxicol 60% powder product and to determine the withdrawal period taking account of the maximum residues limit.

In order to detect doxycycline residues it was used solid-liquid extraction method. The samples were minced and extracted with an alcoholic solution, they were centrifuged and the supernatant was used to determine doxycycline residues by HPLC analysis.

The exponential equation reproduces the best the depletion of doxycycline + 4EP in pig meat and organs.

CLINICAL ASPECTS AND THE MANAGEMENT OF ETHYLENE GLYCOL INTOXICATION IN FIVE CATS

C. MURE AN, C. POPOVICI, M. MIRCEAN, G. GIURGIU, I.C. SCURTU

University of Agricultural Sciences and Veterinary Medicine Cluj Napoca
Faculty of Veterinary Medicine, Emergency Hospital
Manastur Street 3-5, 400372, Cluj-Napoca, Romania
E-mail: muresanscosmin@gmail.com

Summary

Ethylene glycol (E.G.) poisoning in animals and humans is a medical emergency, having unfavorable consequences in most cases. It is relatively easy to diagnose and represents the one of the most common type of intoxications met in dogs and cats, particularly in the cold season.

The number of cases of ethylene glycol intoxication in dogs and cats seen at the Colorado State University Veterinary Teaching Hospital between 1979 and 1986 was compared with the number of cases of rodenticide, insecticide, herbicide, simple organic compound and food poisonings for the same time period. Of 104 intoxications, ethylene glycol (30/104), rodenticide (53/104), and food poisonings (6/104), were major contributors (2).

This case report describes E.G. intoxication in 5 cats, the obtained clinical data, the treatment and the evolution of these patients.

Key words: ethylene glycol, cat, intoxication, antifreeze, glycolic acid, oxalic acid, ethanol, poisoning, calcium oxalate crystals.

EYE FUNDUS EXAMINATION IN ANIMALS AND ITS IMPORTANCE FOR DIAGNOSES

DONIS ALINA, A. MUSTE, L. OAN , N. MATE , F. BETEG

University of Agronomical Sciences and Veterinary Medicine

Calea M n tur 3-5 Cluj-Napoca

donisa_alina@yahoo.com

Summary

This work is about the value of ophthalmoscopy in the veterinary field. We analysed eye fundus area, because he can suffer modifications not only in local diseases but in systemic diseases too. Our observations were made on different species (horses, dogs and cats). We used the indirect ophthalmoscopy method with Heine OMEGA 2 C Indirect Ophthalmoscope.

Keywords: animal ophthalmology, eye fundus, retina degeneration, optic nerve

ESTIMATION OF BLOOD PRESSURE IN PETS

**M.C. BR SLA U, DANIELA ELENA BR SLA U, SILVIA JOI A, S.
IONESCU**

Faculty of Veterinary Medicine Bucharest.

Summary

Estimation of blood pressure was realized using the oscilometric method in dogs and cats. The determinations were done with an OMRON R1 device or with a Memo Diagnostic MDPRO Cat + Dog Blood Pressure Monitors. The animals were awake and the lateral or sternoabdominal position was used.

Estimation of blood pressure was useful especially in the diagnosis of arterial hypertension.

Because the method is easy to apply and is very accurate, determination of blood pressure became a routine method in the clinical examination of animals.

CLINICAL AND PARACLINICAL ASPECTS IN CUSHING SYNDROME (HYPERADRENOCORTICISM) IN DOGS

V. BOGHIAN, G. SOLCAN, LUMINI A DIANA HRI CU, S.I. BE CHEA
CHIRIAC, S.A. PA CA

Faculty of Veterinary Medicine, Ia i
lboghian@yahoo.com

Summary

The common clinical aspects of the Cushing (hyperadrenocorticism) syndrome were: symmetrical alopecia, shineless fur, thin skin with reduced elasticity, abdominal ptosis, hyperpigmentation of the skin, cutaneous calcification and muscular atrophy. Polydipsia, polyuria and sometimes polyphagia were also noted.

The biochemical profile revealed moderate hypercortisolemia ($50,8 \pm 13,5$), hyperglycemia ($143,4 \pm 3,3$ mg/dl), hypercholesterolemia ($332,0 \pm 2,9$ mg/dl), higher serum activity of the hepatic transaminases (AST= $89,72 \pm 2,3$ UI/L, ALT= $93,26 \pm 2,6$ UI/L) and of the alkaline phosphatase ($378,0 \pm 3,8$ UI/L). The high levels of alkaline phosphatase, associated with some clinical signs, represent an important element in establishing the paraclinical diagnosis of the hyperadrenocorticism syndrome.

The echography revealed the hypertrophy of the adrenal glands ($2,92 \times 1,43$ cm), and the necropsy showed diffuse calcifications of the adrenal glands, hepatomegaly and some splenic hematoma, all being a consequence of glucocorticoids in excess.

In dogs with hyperadrenocorticism syndrome, the histological lesions of the adrenal glands revealed metabolically active cells (large, intensely stained and with big nuclei), with lipid inclusions, precursors of the glucocorticoid hormones, and metabolically inactive cells (small, dark stained, with picnotic nuclei or rich in heterochromatin).

Key words: dog, hyperadrenocorticism syndrome (Cushing), clinical signs, ultrasonography, biochemical profile

CLINICAL ASPECTS AND SURGICAL TREATMENT IN LEFT DISPLACEMENT OF ABOMASUM IN HOLSTEIN COWS

F. BETEG, A. MUSTE, L. OAN , N. MATE , C. OBER

University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Faculty of Veterinary
Medicine, Surgery Department, Str. Manastur no.3 -5, cod 400372,
Cluj-Napoca, Romania, BTG@email.ro

Summary

Development in Romania in the last 15 years, the new dairy farms with high production Holstein cows, usually the cows are exposed to a productive enforcement by feeding them with TMR (total mixed ration) with high ratios concentrates, leads to occurrence of other conditions between them being left displacement of abomasum. This condition usually occurs as early as 45 days post partum, associated with other intercurrent diseases like: retained placenta, metritis, mastitis, ketosis. The most common clinical signs observed on 11 cows in the study were: sudden decrease in milk production, off feed, udder like sponge consistence, vital functions range in normal limits, dehydration being observed only in last stage. Positive diagnosis was established by simultaneous percussion and auscultation in the left flank, where the "ping" sound appears. Surgical correction can be performed by different surgical procedures; in the present study we performed surgical correction by right pyloromentopexy.

Key words: abomasum, displacement, left, cows, right pyloromentopexy

PREVENTION OF RUMEN ACIDOSIS IN DAIRY COWS

B. PETRUJKI¹, H. ŠAMAC², M. ADAMOVI³, JELENA NEDELJKOVI –
TRAILOVI⁴, RADMILA MARKOVI⁵, DANIJELA KIROVSKI⁶

Summary

Average milk production per cow during lactation is significantly increased during last two decades. Beside improvements on the field of genetics, changes in the way of feeding have contributed to this, all that was done in aim to achieve optimal production. Use of total mixed rations and increase of part of energetic dense feeds in rations are nowadays concept for successful and rentable milk production. A part of "energetic dense" feeds is often kept on highest possible level in order to assure satisfyingly amounts of energy for production needs of high productive dairy cows.

Rumen content acidity increase caused by large amounts of easily digestible carbohydrates and decreased of buffer capacity which originates, beside other, from forages, lead to rumen acidosis. In the early 60s years of last century, the use of highly concentrated feeds (in order to meet requirements in energy over easily digestible carbohydrates) was judged "knife edge" between maximal productivity and development of disorders (diseases) caused by rumen acidosis.

Disorders in processes of feed digestion in pregastric chambers and subsequently formed acidosis cause numerous pathological processes, which include morphological alterations of rumen mucosa. Having that on mind, and a fact, that appetite is decreased in acidosis, it is quite clear that the end result of these disorders is decreased milk production.

Our aim was to evaluate rumen acidosis emersion frequency in early postpartum period and possibilities for its prevention. Results of study, have shown, that 20% of animals embraced by this trial had subacute form of rumen acidosis.

Key words: Rumen, Acidosis, Prevention, Milk production, Cows

¹ Mr. sci Branko T. Petrujki, DVM, assistant, Department of nutrition, Faculty of veterinary medicine, Belgrade

² Dr Horea Šamanc, professor, Clinic for buiatrics., Faculty of veterinary medicine, Belgrade

³ Dr Milan Adamovi, ITNMS Belgrade

⁴ Dr Jelena Nedeljkoivi Trailovi, docent, Department of nutrition, Faculty of veterinary medicine, Belgrade

⁵ Dr Radmila Markovi, assistant, Department of nutrition, Faculty of veterinary medicine, Belgrade

⁶ Dr Daniela Kirovski, docent, Department of physiology, Faculty of veterinary medicine, Belgrade

**THE URINE TEST AFTER THE INTRAVENOUS ADMINISTRATION OF THE
NONIONIC RADIOLOGIC CONTRAST SUBSTANCE ULTRAVIST 370 TO
THE CAT**

R. L. C. TU , I. PAPUC

Faculty of Veterinary Medicine, Cluj-Napoca, Calea M n tur 3-5,
rlacatus2003@yahoo.com

Summary

The use of ionic iodine contrast substances (Odistan) for the cat, was up until recently quite problematic, casting a lot of doubts since this animal is highly sensitive to iodine, which in clinical terms is expressed by a varied and severe symptomatology, which eventually leads to the loss of the animal. These adverse reactions are based upon the important factor of the high osmolarity of the ionic iodine substances and on the sensitivity of each patient.

The discovery of the nonionic low osmolarity contrast substances enables their use in the urology of the cat.

A complete examination of the urinary tract is comprised of both the study of the capacity of the kidney to function and the urine test.

THE EVALUATION OF THE ENERGETIC STATUS AT COWS IN LACTATION BY DETERMINING THE CONCENTRATION OF THE ORGANIC COMPONENTS FROM MILK

DANIJELA KIROVSKI, H. SAMANC, B. DIMITRIJEVIC, I. VUJANAC, Z. DAMJANOVIC, M. POLOVINA

Faculty of Veterinary Medicine Beograd, Department of Reproduction
Obstetrics and Gynecology

Summary

Valid indicators of the energy status of cows are the body condition, parameters of the metabolic profile, hormonal status, and organic components of milk. The energy status of cows of the Holstein Friesian breed from four farms was estimated on the grounds of urea, protein and fat concentration in milk. Investigations covered 62 samples of milk (11 from farm A, 16 from farm B, 15 from farm C, and 20 from farm D). All cows were in the first stage of lactation and fed rations recommended for that category of animal. The average fat concentration in all milk samples was $23\pm 13\text{g/l}$, the average protein concentration was $29\pm 3\text{g/l}$, while the average urea concentration was $4.6\pm 1.3\text{mmol/l}$. It could be concluded on the basis of the value for the milk fat concentration alone that a decreased milk fat syndrome was present. In addition, graphic presentations are given for the relation between urea concentration and protein concentration, as well as protein and fat concentrations in the individual milk samples. Such an analysis provided a more detailed picture of the energy status of the examined cows. It was established that cows on farm A had a deficiency of energy and protein, and cows on farms B and C a deficiency of energy with a relative surplus of proteins. It was established that cows from farm D had a deficiency of energy, and there was an equal number of cows with a deficiency and with a relative surplus of proteins. The obtained results provide grounds for making recommendations for correcting the feed rations and improving the health of the cows. It stems from the obtained results that the determination of urea, fat and protein concentrations in milk is a reliable indicator of the energy status of cows, that it is rational and financially acceptable for every producer, regardless of whether it is implemented in small or large cattle farms. The diagnostic procedures used so far have been implemented in a limited form in daily practice because of insufficient reliability (evaluation of body condition) or lack of economic feasibility (metabolic profile and hormonal status of cows).

Key words: High-yield dairy cows, energy status, milk components.

TREATMENT OF ENDOMETRITIS AND DISORDERS IN PUERPERIUM WITH USAGE OF MATTERS WITHOUT WITHDRAWAL PERIOD IN DIARY COWS

T. PETRUJKI ⁷, B. PETRUJKI ⁸, I. JEREMI ⁹

Summary

Treatment of endometritis of dairy cows is done in a long period with substances on base of disinfectants, acids, antibiotics or plant extracts (melems). Most of these matters have withdrawal period for meat and milk.

In our work on over 1000 dairy cows (on 12 farms) we have used dilutions of chlorhexidine gluconate and digluconate, in treatment of endometritis from mark 0 to mark 3 (new classification of endometritis by Anglo-Saxon authors) in the period of half-year, from the middle of September 2007 till February 2008.

During investigation of chlorhexidine effect on uterus involution process and occurrence of new estrus in dairy cows, after three consecutive flushing's in hot and cold pattern in mentioned concentrations and volume, we have done inspection of cows several times (in some of the cows daily for 10 days). In one number of cows' first inspection was done seven days after last flushing, second after 14, third 21 days after treatment of puerperal endometritis or post puerperal endometritis.

With this treatment of noticed puerperal disorders we have managed to significantly shorten service period, increase fertility on around 85% and decrease insemination index on 1.2. By treating endometritis and pathological puerperium with matters which do not have withdrawal period (for meat and milk) we can surely increase profitability of dairy industry. Dilutions of chlorhexidine are, compared to other classical uterus flushing dilutions, cheaper, more efficient and estral cycles in cows are more noticeable, with more estral mucus, especially in first six weeks after parturition.

Key words: chlorhexidine gluconate, endometritis, pathological puerperium, service period, insemination index.

⁷ Dr Tihomir A. Petrujki , professor, Clinic for reproduction, sterility and a.i., Faculty of veterinary medicine, Belgrade

⁸ Mr. sci Branko T. Petrujki , DVM, assistant, Department of nutrition, Faculty of veterinary medicine, Belgrade

⁹ DVM Ivan Jeremi , postgraduate student -specialisation, PKB Corporation, Belgrade

ARTIFICIAL INSEMINATION OF DIARY COWS WITH PROLONGED SERVICE PERIOD WITH USE OF NATIVE BULL SEMEN DURING SUMMER PERIOD

T. PETRUJKI ¹⁰, B. PETRUJKI ¹¹, B. IVKOVI ¹²

Summary

It was noticed that during summer period cows on all farms and in both breeding system (tied or free stall) have problems with fertility. This low fertility in this period affects fertility of the herd and necessary pregnancy rate of 82% yearly can not be achieved. During these months the bulls in reproduction centres also produce ejaculates that couldn't be frozen or the sperm is less fertile. This has considerably big effect on overall pregnancy of cows in June, July and August months in PKB Corporation every year.

In this period besides endometritis other paragenetic factors, primarily nutrition lead to prolongation of service period and high insemination index of cows. In cases when 20 % of cows are affected service period can be prolonged for over 150 days.

Because of all that we've decided to inseminate cows with the prolonged service period (over 4 months and with 4 or more insemination), through summer period on farm Lespušnica, PKB Corporation, with fresh diluted equilibrated semen of bulls from the PKB centre.

Control of the semen was done by microscope before the each use. Semen was used up to 72 hours after collecting (preparation), was diluted in andromed and kept on temperature of 5°C. Comparison of the fertility of cows inseminated with fresh diluted semen was done in same period with the fertility of cows inseminated with deep frozen semen originating from same bulls following the plan and programme of a farm.

Key words: Prolonged service period, artificial insemination, native diluted semen, fertility, summer period.

¹⁰ Dr Tihomir A. Petrujki , professor, Clinic for reproduction, sterility and a.i., Faculty of veterinary medicine, Belgrade

¹¹ Mr. sci Branko T. Petrujki , DVM, assistant, Department of nutrition, Faculty of veterinary medicine, Belgrade

¹² DVM Branislav Ivkovi , postgraduate student -specialisation, PKB Corporation, Belgrade

CANINE PROSTATE PATHOLOGY

**GABRIELA KORODI, VIOLETA IGNA, H. CERNESCU, C. MIRCU,
ILINCA FRUNZ , RENATE KNOP**

Faculty of Veterinary Medicine Timi oara
Calea Aradului 119, 300645 – Romania
korodigabriela@yahoo.com

Summary

The aim of this bibliographic study is to review the main prostatic diseases which affect dogs from different breeds and ages, as follows: benign prostate hyperplasia, squamous metaplasia of the prostate, prostatitis, intra and paraprostatic cysts, prostatic neoplasms and prostate atrophy. For each of the mentioned diseases will be present the most important characteristics.

Key words: prostate pathology, dog, reproduction

BOAR SEMEN EVALUATION USING CASA AND ITS RELATION TO FERTILITY

C. MIRCU, H. CERNESCU, VIOLETA IGNA, RENATE KNOP, ILINCA FRUNZ , V. ARDELEAN, GH. BONCA, G. OTAVA, SIMONA ZARCULA, GABRIELA KORODI, A. ARDELEAN

Faculty of Veterinary Medicine Timisoara
Calea Aradului No. 119, Timisoara 300645, Romania

Summary

For artificial insemination in sow, using optimal dose of spermatozoa is crucial. Dilution rate of raw semen can be established based on various parameters, best characterized using CASA. In this paper, CASA is used for evaluation of younger and adult boar semen, in relation to subsequent fertility and also, for emphasizing special sperm features such as hyperactivation or presence of sperm subpopulations. Based on our findings, we conclude that CASA system provides accurate data for semen evaluation, concerning motility and velocity parameters; also it can be established if semen is hyperactivated or not. The analyzed semen parameters, at least in the frame of this paper, do not support a differentiation of semen subpopulations. Semen parameters described using CASA can serve as predictive values for fertility parameters, such as conception rate and litter size.

THE MICROBIOLOGICAL CARGO OF SEMINAL DOSES BY BOAR AND HIS POSSIBLE EFFECTS

ST. GR. CIORNEI, L. RUNCEANU, P. ROSCA, D. DRUGOCIU

U.S.A.M.V. Faculty of Veterinary Medicine Iasi
U.S.A.M.V.-F.M.V., Obstetrical and Veterinary Andrology,
stefan_ciornei@yahoo.com

Summary

The doses of seminal material used for I.A. proceeded from two different farms were analysed through general and special exams (microbiology and biochemistry). Due to the exams, it was observed the presence of bacteriums and fungi. The NTG has varied depending on: the quality of the diluting agent used at the doses prepare, genital apparatus soundness and hygiene conditions of harvesting and processing the seminal material. The doses which had the NTG value brought-up, it was observed the altering of the pH due to the acidification. The altering of the initial parameters of a dose of material seminal dose causes to the diminution of the quality through losing the fertile capacity, the mobility's diminution, the death and agglutination of the spermatozoons.

Key words: spermatozoons, bacteriums, fungi, quality

THE VASCULAR SUTURES AND ANASTOMOSIS IN DOG

**A. MUSTE, L. OANĂ, F. BETEG, N. MATEI, ROXANA BRICIU,
ALINA DONIS, C. OBER**

University of Agronomical Sciences and Veterinary Medicine
Calea Mănăstur 3-5 Cluj-Napoca
muste-aurel@email.ro

Summary

Our researches and observations follow some aspects related to the vascular sutures. Various methods of vascular suture are described, in dogs suffering from different vascular disorders. Thus, we tackled linear suture methods, end-to-end and application methods as well as the suture of the vascular patch.

Prolene suture threads are used with non-traumatic needles on both ends. Very good results have been obtained in all three procedures, for the presented cases. The good and very good results are conditioned by the materials used for the vascular sutures, as well as by the techniques used. By respecting a few principles like: the use of non-traumatic needles, keeping an appropriate distance of 1 - 15 mm from the vascular wound's edge, the distance between two suture points should be regular along the whole length of the wound, keeping the vascular lumen, respecting the asepsis and antisepsis rules, very good results can be obtained.

All the suture types have been well tolerated by the tissues, while all fellow practitioners can apply the types of vascular sutures presented. The choice of a certain suture type, using continuous or separate point suture, depends first on the equipment, the experience of the surgeon, the type of the blood vessel, the blood emission, but all the presented techniques can offer good results.

Keywords: blood vessels, angiography, dog.

THE VASCULAR PROSTHESIS UTILIZATION IN ANIMALS

**A. MUSTE, L. OAN , F. BETEG, N. MATE , ROXANA BRICIU, C. OBER,
ALINA DONIS**

University of Agronomical Sciences and Veterinary Medicine
Calea M n tur 3-5 Cluj-Napoca
muste-aurel@email.ro

Summary

The present work defines some aspects and observations regarding the vascular prosthesis in animals. The observations are done on a number of 12 dogs with different ages, being in a vascular part substitution position. For the vascular graft a synthetic prosthesis from Dacron with small porosity has been used. The Dacron graft has been used in the both cases, arterial and venous vessels, and the anastomosis has been done with Dacron thread covered with Tef lon. The anastomosis has been done in different points, and also in continuous thread. We also lave to take consideration about the prosthesis diameter and the prosthesis blowing through integral blood before the anastomosis. The Dacron prosthesis is well tolerated by the dog's organism without adverse reactions or other intolerance situations. After the Dacron grafts fastening, the subjects lave been observed for 6 mouths.

In veterinary medicine the vascular prosthesis are lees approached and study spite o f the some importance from the human medicine.

In human medicine the synthetic vascular prosthesis are known and used with success for long time. Generally are used the synthetic vascular prosthesis. There are a lot of situations (aneurisms, tumoral states, septic processes with lack of substance) where are used vascular prosthesis.

Key words: dogs, vascular prosthesis, anastomosis

**REGENERATIVE THERAPY IN SPINAL CORD INJURIES: TRANSPLANT
OF OLFACTORY ENHANCED GLIA AND STEM CELLS**

M. MUSTEA , GH. SOLCAN
Faculty of Veterinary Medicine Iasi
gsolcan@univagro-iasi.ro

Summary

This paper presents new regenerative therapy in several pathological conditions of the spinal cord in animals: transplant of olfactory enhancing glia (OEG) and stem cells which increase the chances of therapeutic success in spinal cord injuries. The effect of transplanting neural stem cells for the treatment of spinal cord injuries has been studied with great interest during the last two decades. Studies regarding transplants in spinal cord injuries have been done and are still in a research state. Passing from studies on experimental rat models to clinical studies in human gives new perspectives for the recovery of the patients (both human and animals) with spinal cord disfunctions.

**SYSTEMIC RESPONSE TO POLYPROPYLENE MESH USED FOR THE
REPAIR OF ABDOMINAL WALL DEFECTS IN HORSES**

C. OBER, A. MUSTE, L. OAN , N. MATE , F. BET EG

University of Agricultural Sciences and Veterinary Medicine, 400372 Cluj -
Napoca, Calea M n tur no. 3-5, Cluj, Romania,
cipri_ober@yahoo.com

Summary

Tissue damage following defects of abdominal wall repair might be accompanied by triggering of the systemic response. The purpose of this study was to assess the modifications in the systemic response (leukocytes, C-reactive protein (CRP), albumin, fibrinogen and C₃ complement fraction) after subcutaneous premuscular-aponevrosis and retromuscular implantation of polypropylene mesh in 5 horses.

Key words: horses, polypropylene mesh, eventration, inflammation

ASPECTS REGARDING URETEROENTEROANASTOMOSIS TECHNIQUE IN DOGS

**L. OAN , V. MICL U , A. MUSTE, N. MATE , FL. BETEG, C. OBER,
L. OGNEAN, C. PE TEAN, O. NEGREA**

University of Agricultural Sciences and Veterinary Medicine, 400372 Cluj-Napoca, Calea M n tur no.
3-5, Cluj, Romania,
[oanaliviu2008@yahoo.com](mailto: oanaliviu2008@yahoo.com)

Summary

In our study we present a technique of ureteroenteroanastomosis in cases of irreducible diseases of urinary bladder .

Key words: dogs, ureteroenteroanastomosis, urinary bladder.

**IMPAIRED GLUCOSE TOLERANCE AND ADIPOSE TISSUE
INFLAMMATION IN NUTRITIONAL INDUCED OBESITY IN RAT**

V. I. RUS, E. DOMBAY, C. CATOI, A. GAL, A. I. BABA

Pathology Department, Faculty of Veterinary Medicine Cluj -Napoca,
Mo ilor str., No. 5-7
rus1979@yahoo.com

Summary

Intra-abdominal fat is closely associated with insulin resistance and, therefore, plays, an important role in the development of metabolic disorders including hyperglycemia, hypertension, hypertriglyceridemia, and low high-density lipoprotein (HDL)-cholesterol, all this are in direct relation with cardiovascular disease.

Data regarding obesity level, insulin sensitivity, the development of the intra -abdominal fat, histopatological aspect of intra-abdominal fat were collected from experimental obese rats comparative with normponderal rats. We want to see if there are any correlation between development of intra -abdominal adiposity and other metabolic and lesional modification.

**STUDY REGARDING THE IMMUNOADJUVANT QUALITIES OF AN
UNCARIA TOMENTOSA-BASED PRODUCT**

C.G. BELTEGHI*, R. MOGA MÂNZAT**

* Pasteur Institute Bucharest

** Faculty of Veterinary Medicine Timisoara

Summary

This work has intended to be an objective study upon the immunomodulatory virtues of an *Uncaria tomentosa*-based medicinal product, for human uses, in order to introduce such immunoadjuvants into the Romanian veterinary praxis, in the future.

The researches were carried out in vivo, by administrating the studied product to an experimental lot (n=7) of domestic rabbits, and monitoring the dynamics of some immune parameters, like the phagocitary index, the leukogram and the specific antibody titer, in rabbits of the experimental, comparative with those of the control lot (n=7). The study have lasted for 32 days, when were made two antigenic inoculations, at spells of 14 days, to the rabbits of both groups. The blood samples needed for the haematological and serological examination were taken before the experiment beginning and 14 days after each antigenic inoculation, with La Sota s train of Newcastle virus, of rabbits.

The haematological results show that the studied immunomodulator exerted a stimulating effect upon the total leukocyte count, but this effect was statistically assured only after the second antigenic inoculation of rabbits. An analogous effect was observed upon the antibody synthesis process, the inhibohmagglutinant titer registered in the experimental lot, at the final blood sampling, being 1.64 fold higher than in the control lot.

The immunostimulatory effect of the studied product recoiled also, upon the functional capacity of the circulating phagocytes, the phagocitary index registering, only in the experimental lot, a substantial (2.16 fold) increases after the first antigenic inoculation.

**AN EPIDEMIOLOGICAL EVALUATION OF BOVINE TUBERCULOSIS IN
SOUTH BACKA REGION OF
VOJVODINA PROVINCE**

**I. PUŠI¹, SARA SAVI -JEV ENI¹, D. LALOŠEVI², D. BUGARSKI¹,
JASNA PRODANOV¹, Ž. GRGI¹**

¹ Scientific Veterinary Institute »Novi Sad«, Serbia

² Faculty of Veterinary Medicine, Novi Sad, Serbia

Summary

Bovine tuberculosis is one of the most complex animal health problems that the cattle farm operations in Serbia face today. In the South Backa region (SBR) we have registered three hotspots of bovine tuberculosis breakdown, in the municipality of Zabalj, Titel and Novi Sad. The first 11 infected cattle were detected during routine diagnostic testing in 2004 year. Another 113 were detected in 2006 and 54 in 2007 year. Although bovine tuberculosis is endemic in SBR, current breakdown is due to lack of diagnostic and control programs in the years that preceded, illegal cattle movements and trading of unmarked infected cattle. The persistence of infection is mostly linked to the traditional extensive breeding system and free-ranging cattle. For ante mortem diagnosis of tuberculosis in cattle we used tuberculin skin tests and blood based gamma interferon test (γ -IFN). Post mortem, a detailed pathological examination and histopathology were undertaken, as well as acid-fast (AFB) bacillus smear examination for bacteriological diagnosis. This paper describes the current scheme, reviews some epidemiological and diagnostic work undertaken in support of the program and identifies problems considered to interfere with successful eradication of infection in this region.

Key words: bovine tuberculosis, diagnosis, epidemiology, eradication

THE DIAGNOSIS OF SCRAPIE IN A FLOCK OF SHEEP

C. C TOI, A. I. BABA, A. GAL, M. A. TAULESCU, I. V. RUS, P. BOLFA

University of Agricultural Sciences and Veterinary Medicine Cluj -Napoca,
Department of Pathology, 3-5 M n tur Street, 400372 Cluj -Napoca,
Romania
cornelcatoiu@yahoo.com

Summary

Scrapie is important because it is a significant cause of sheep and goats disease; also it is a Transmissible Spongiform Encephalopathy (TSE) which is a potentially transmissible to humans. The aim of this research was to diagnose scrapie in an effective of sheep with clinical signs of scrapie by necropsy exam, as well as through histopathological exam in nervous system and immunohistochemical methods of the nervous system and lymphoid tissue of the third eyelid.

Four sheep manifested specific clinical signs for scrapie. At the necropsy exam we found nonspecific lesions. We have established the diagnosis of spongiform encephalopathy based on the presence of large cytoplasmic vacuoles in neurons, spongious aspect of the neuropil due to vacuolization of the neuronal processes, gliosis without inflammation. Neurons from brain stem pons were highly positive in immunohistochemical exam, using P4 antibody thus, in the cytoplasm of pericarions and neuronal processes were observed highly positive granules. From 40 lymphoid biopsies from third eyelid revealed only one case of subclinical scrapie .

BACTERIOLOGICAL INVESTIGATIONS IN PYOMETER IN DOG AND CAT FEMALES

P. RO CA, L. RUNCEANU, D. DRUGOCIU, T. CIORNEI

U.S.A.M.V. Faculty of Veterinary Medicine Iasi

Summary

The bacteriological investigations were conducted on the uterus got after ovary-histerectomy operation in 30 bitches and 25 cats having piometer. After the bacteriological exams there were isolated 41 (46.06%) strains of *E.coli*, 23 (25,84%) strains of *A. pyogenes*, 10 (11,23%) strains of *St. aureus*, 7 (7,86%) strains of *Cl. perfringens* and 1 strain (1.12%) of *P. multocida*.

Among the 55 cases investigated, 26 (47.27%) presented singular infections, 25 (45,45%) mixed infections and 4 (7,27%) association infections.

All bacterial Gram (-) strains isolated showed a gradual sensitivity (intermediate and sensible) to streptomycin-like antibiotics, and the Gram (+) ones to the penicilin-like antibiotics.

Key words: dog female, cat female, pyometer, bacteriological exam.

**A KIT FOR DETECTION OF ANTI - *M. PARATUBERCULOSIS*
ANTIBODIES IN RUMINANT BY *ELISA* IN SERUM AND MILK**

**M. SAMARINEANU, DANIELA BOTU , RODICA MEDEANU, ANA
CI MILEANU, VIVIANA CIUC , ALEXANDRINA ALECU**

Pasteur Institute, Bucharest

Summary

A LAM -antigen from culture of *Mycobacterium paratuberculosis* was prepared and used for antibody capture in an ELISA kit for the diagnosis of ruminant paratuberculosis in individual sera, pool of 10 sera and milk (cattle, sheep and goat). The kit was checked using positive and negative sera and milk samples, tested by a commercial ELISA kit, registered in Romania, used as reference. The results are in agreement with those of the reference kit regarding the sensitivity and specificity. The kit was proposed for testing in order to register it as ELISA PARA -Ruminant.

Key words: LAM- antigen, ELISA, paratuberculosis, diagnosis, cattle, sheep, goat.

APPROACHES TO FARM SCREENING FOR PERMANENT INFECTED ANIMALS WITH BOVINE VIRAL DIARRHOEA VIRUS (BVDV -PI)

R. URIAN, G. BONCA

Faculty of Veterinary Medicine Timisoara, 119 Calea Aradului

Summary

A methodological procedure was established for BVDV -PIs detection in two dairy farms which presented reproduction problems as abortions, weak newborn calves that died after few days of having born, repeat breedings, reduced milk production, among others. 173 Holstein breed animals including calves, heifers and cows raised in confinement system production conformed the inventory of both farms, which had not BVDV vaccination programs and were located in the region of Sebranice, Czech Republic. Initial herd screening by conventional RT -PCR of a pooled milk sample (50ml), from each farm to determine whether or not the presence of BVDV, was carried out. Once the BVDV was confirmed, individual blood serum of the animals was screened by both Virus neutralization test (VNT) and ELISA to identify the permanent infected animals (PIs). In every test positive and negative controls were included. Finally, individual blood sera of the most suspected animals of being in the status of PI (none antibody titre and ELISA positive), were analyzed through RT -PCR test. Two bovines were confirmed to be PI animals.

Keywords: bovine, reproduction, virus.

WEST NILE VIRUS INFECTIONS IN ROMANIA – PAST, PRESENT AND PERSPECTIVE

GH. SAVU A¹, LUANDA LUDU¹, ADRIANA ANI¹, D. ANI¹,
AURELIA IONESCU²

¹U.S.A.M.V. Ia i, Faculty of Veterinary Medicine, Mihail Sadoveanu Str. no. 8
700489,

²I.D.S.A., Doctor Staicovici Str., no. 63, Bucharest,

Summary

West Nile virus (WNV) is currently the most widely distributed arbovirus in the world, occurring on all continents and causing sporadic cases and outbreaks of human and equine disease in Europe (western Mediterranean and southern Russia between 1962 and 1964, Belarus and Ukraine in the 1970s and 1980s, Romania in 1996 and 1997, Czechland in 1997, and Italy in 1998). Environmental factors, including human activities that enhance population densities of vectors (heavy rains followed by floods, irrigation, higher than usual temperature, or formation of ecologic niches that enable mass breeding of mosquitoes) could increase the incidence of West Nile fever. The outbreak of West Nile fever in and near Bucharest in 1996–1997, led to more than 500 clinical cases in human with a case-fatality rate of nearly 10% (15). The article presents a short review of the WNV evolution in Romania and discuss the results of our researches. We have made a serosurvey in horses and birds which are the indicators for the West Nile virus presence. The results underline the evolution of West Nile Virus in the south east region of Romania in the last two years and the lack of any antibody detection in horses sampled from the north east region. We have registered a seroprevalence ratio in horses from the south east area varying between 33, 53%, and 31,88% (for the IgG detection) with positive results for IgM also. In birds the seroprevalence was 7, 46% with a percent of in 21, 95% Corvidae, which are incriminated as virus reservoir.

Key words: West Nile Virus, horse, birds, serosurvey

**SEROEPIDEMIOLOGICAL RESEARCHES REGARDING SWINE AND
HUMAN HEPATITIS E IN ROMANIA**

**GH. SAVU A¹, ADRIANA ANI¹, D. ANI¹, LUANDA LUDU¹,
ELENA DUCA², NICOLE PAVIO³**

¹U.S.A.M.V. Iasi, Faculty of Veterinary Medicine, Aleea Mihail Sadoveanu,
nr.8, 700489, Iasi, Romania

²A.S.P. Iasi, Str. V.Conta nr. 2-4

³UMR 1161, Ecole Nationale Veterinaire d'Alfort, France

Summary

Hepatitis E is an infectious viral disease with clinical and morphological features of acute hepatitis in humans. The causative agent of the disease, hepatitis E virus (HEV), is a single-stranded RNA virus without an envelope. The infection spreads normally by contaminated water and represents an important health problem in developing and industrialised countries. Swine HEV was first identified in 1997 and is now considered a ubiquitous virus, swine strains of HEV showing to be antigenically and genetically related to human HEV.

In the present study, 112 swine serum samples were collected from household system and 69 samples were tested using immunoblot assay. Also 67 human serum samples from east of Romania were tested. The goal of the investigation was to detect the IgG anti-HEV in swine and human. The presence of IgG anti-HEV was detected in 34 swine serums and 4 human serums.

Key words: hepatitis E virus, IgG, swine, human

AN ALTERNATIVE OF ANTI-SALMONELLA PROTECTION WITH A PROBIOTIC PRODUCT IN BROILERS

I. IBRU , N. CATAN , IONICA FODOR

Faculty of Veterinary Medicine Timisoara

Summary

This paperwork presents the results achieved after the study upon the protective effect of a probiotic containing *Bacillus subtilis* 1.6×10^9 UFC / g product on a lactose base. The control group received only fodder, group 2 received only culture of *Salmonella enteritidis* 2×10^5 UFC/ individual, group 3 received culture of *Salmonella enteritidis* 2×10^5 UFC / individual and probiotic, and group 4 received culture of *Salmonella enteritidis* 5×10^5 UFC/ individual and probiotic. Broilers in the groups 2 and 4 presented *Salmonella* within cloacae one week after the induced infection. We may draw the conclusion that although we performed a single administration, in day 7, the amount of germs ingested determines a limited protection of the product analyzed, because broilers in group 3, which received only 2×10^5 UFC did not present, after cultivation, *Salmonella* cultures.

THE INFLUENCE OF DIFFERENT INFECTION ROUTE AND IMMUNOLOGICAL STATUS ON THE DETECTION AND DISTRIBUTION OF VIRAL ANTIGEN AFTER EXPERIMENTAL INFECTION IN PIGLETS WITH CLASSICAL SWINE FEVER VIRUS

**JASNA PRODANOV¹, R. DOŠEN¹, M. VALIĆ², T. PETROVIĆ¹,
DIANA LUPUIOVIĆ¹, I. PUŠIĆ¹, V. POLAČEK³**

¹ Scientific Veterinary Institute «Novi Sad», Rumena ki put 20, Novi Sad, Serbia

² Faculty of Veterinary Medicine, 11000 Belgrade, Serbia

³ Veterinary Institute Kraljevo, Serbia

Summary

An experimental study was conducted to investigate detection and distribution of classical swine fever virus (CSFV) antigen in piglets with different immunological status, infected on different infection routes. The experiment was carried out on 24 piglets of different age originating from vaccinated sows and 14 unvaccinated piglets originating from unvaccinated sows. Two routes of challenge were used: intramuscular and horizontal (contact) infection. After death or sacrifice, the samples of spleen, tonsil, kidneys, mandibular lymph nodes and terminal part of ileum were collected from all the experimental animals. Enzyme linked immunosorbent assay (ELISA) and reverse transcriptase polymerase chain reaction (RT-PCR) were used for the detection of the CSFV antigen in tissue samples of the experimentally inoculated piglets. The results of our examination indicate that RT-PCR technique needs to be included in all the cases when it is not possible to establish accurate diagnosis of CSF using other available methods.

Key words: classical swine fever, maternal antibodies, China strain, RT-PCR

**SEROEPIDEMIOLOGICAL INVESTIGATIONS REGARDING BOVINE
VIRAL DIARRHOEA - MUCOSAL DISEASE IN THE NORTH - EAST OF
ROMANIA**

D. ANI¹, GH. SAVU A.¹, ADRIANA ANI¹, TEFANIA MERTICARIU²

¹U.S.A.M.V. Iași, Faculty of Veterinary Medicine, Aleea Mihail Sadoveanu no.
8

²L.S.V.S.A. Iași, Aleea Mihail Sadoveanu, no. 10

Summary

Bovine Viral Diarrhoea-Mucosal Disease is a generalized viral infection which primarily infects ruminants, caused by BVD virus (BVDV). BVDV is a heterogeneous group of viruses of the Family *Flaviviridae* grouped in the genus *Pestivirus*. The BVDV is widespread in the cattle population and the effect of BVD virus infection in cattle depends largely on the immunological and pregnancy status of the host. Economic losses are directly related to multiple clinical forms of the infection that vary from subtle enteric infection to fatal mucosal disease caused by a combination of cytopathic (CP) and non-cytopathic (NCP) biotypes of the virus.

In this study 60 cattle serum samples from household system and 47 serum samples 3 farms were collected and tested using ELISA assay for detection of BVDV antibodies. This kit is based on the principle of competition between the bovine antibodies and a peroxidase coupled monoclonal anti -P80-antibody "WB112". From all the samples tested, were found seropositive 26 serums in household system and 8 samples in farms.

Key words: bovine viral diarrhoea virus, cattle, seroprevalence.

ANATOMOPATHOLOGICAL ASPECTS IN CIRCOVIROSIS IN PIGS

A.F. GAL, C. C TOI, A.I. BABA, V.I. RUS, M. TAULESCU, P. BOLF

Department of Pathology, Necropsy and Forensic Medicine, Faculty of
Veterinary Medicine Cluj-Napoca, 3-5 M n tur Street, ROMANIA,
AGAL_77_2001@yahoo.com.

Summary

Type 2 swine circovirus (PCV2) and the associated diseases represent one of the main causes of morbidity and mortality from pig effectives from Romania in the last 3 years, causing important economical damages. The investigation purpose is to notice characteristic anatomopathological aspects associated to swine circovirus and its associated diseases. The cases were provided by a farm and from a household farm, the total number cases being of 12 mixed breed swine corps, with the age of 4 -6 months. In two years (2006-2007) in our department were diagnosed 12 cases with circovirus, 5 subjects presented coinfections with other diseases that represent 42% cases from total pigs with PDNS. The circovirus was frequent associated with other diseases such as: Enzootic Pneumonia, Contagious swine pleuropneumonia, Piobacillosis, Glasser disease. Porcine dermatitis and nephropathy syndrome (PDNS) – type 2 swine circovirus (PCV2), induce characteristic anatomopathology lesions that could be used to make at least a presumptive diagnose of circovirus and to differentiate the coinfections from the primary disease.

**PHENOTYPICAL AND GENOTYPICAL CHARACTERISTICS OF *E. COLI*
STRAINS ISOLATED FROM AVIAN COLIBACILLOSIS OUTBREAKS**

N. C TAN *, VIRGILIA POPA, V. HERMAN*, IONICA
FODOR***

* Faculty of Veterinary Medicine Timisoara

** S. N. Institute Pasteur S.A. , Bucharest

Summary

The researches have been performed on 93 strains of *E. coli* isolated from broilers with different ages on more farms. In order to detect the genes *ompA*, *iss* and *fimH*, we have applied the PCR technique, the multiprimer variant.

This technique, with its multiprimer variant (multiplex), has made evident the three genes which encode the synthesis of some virulence factors, characteristic to the APEC strains, in 65 (69.90%) of the strains tested.

The gene *iss* which encodes a protein of the external membrane inducing resistance to the complement was present in 53 of the strains tested, the gene *ompA* which encodes a protein of the external membrane responsible with the bacterial attachment was present in 41 of the strains tested and the gene *fimH* which encodes the synthesis of the type -1 fimbriae was present in 42 of the strains tested.

These 3 genes which encode the main pathogenicity factors of the APEC strains were associated to 37 strains; only two or even one gene were associated to the other strains.

**THE STUDY OF SOME BIOCHEMICAL PARAMETERS IN
CRYPTOSPORIDIUM EXPERIMENTAL INFECTION IN BROILER
CHICKENS**

**GH. D R BU¹, O. MEDERLE², NARCISA MEDERLE¹, T.R. OLARIU²,
I.OPRESCU¹, S. MORARIU¹, K. IMRE¹, M. ILIE¹, IONELA HOTEA¹**

Facultatea de Medicina Veterinara Timisoara¹
Universitatea de Medicin i Farmacie Victor Babe Timi oara

Summary

The study of some biochemical parameters in experimental infection with *Cryptosporidia* was performed on three groups of 20 3-days broiler chicken each. The first group was infected with 2×10^5 oocysts of *C. meleagridis*, the second group with 2×10^5 oocysts of *C. parvum* and the third group was the control. At 6 days after the infection, 24 hours faeces were chemically analyzed. At 9 days after the infection some biochemical parameters in the blood of the chicken were assessed.

Cryptosporidial infection in chicken reduces the digestion of proteins, cellulose and lipids. The growth of ALAT enzyme and the decrease of the cholesterol and triglycerides may signal a liver malfunction. The decrease of creatinin and uric acid may be due to the decreased absorption of non-protein nitrogen.

Cryptosporidiosis is a highly researched entity both due to controversies regarding the pathogeneity of different species and their involvement in human pathology. If in mammals, also in Romania, there have been published several articles (1, 7, 8), there are few data published in Romania about the evolution of the disease in birds (1). Moreover, the involvement of *Cryptosporidium* in metabolism, and particularly digestion from the biochemical point of view, has been partially studied (2).

For these reasons, in the present study, we aimed to assess the influence of *C. meleagridis* and *C. parvum* on some biochemical parameters of broiler chicken faeces and on some biochemical blood parameters.

PREVALENCE OF CRYPTOSPORIDIOSIS IN ASSOCIATION WITH OTHER ENTEROPATHOGENS AT PIGLETS IN TIMI OARA COUNTY

K. IMRE, GH. D. R. BUȘU, I. OPRESCU, S. MORARIU, NARCISA
MEDERLE, M.S. ILIE, IONELA HOTEA, MIRELA PALCA, L. TAMASY

Faculty of Veterinary Medicine Timi oara
kalman_imre27@yahoo.com

Summary

Diarrheic fecal samples from 97 piglets from 8 industrial growing farms, aged between one and 49 days, were examined for the detection of *Cryptosporidium spp.* and associated infections with other three enteropathogens: rotavirus, coronavirus and *Escherichia coli* F5. Cryptosporidiosis, detected by ELISA, was present on all the 8 growing farms of Timi oara county, having a prevalence of 33% (28% as a unique pathogen and 5% in association with other pathogens). At the same age category, coronavirus had a prevalence of 1%, evolving in association with *Cryptosporidium spp.* in one case. The prevalence of rotavirus at the examined piglets, was of 16% (12% as a unique pathogen and 4% in association with other pathogens). The infection with *E.coli* F5 enteropathogen was not detected. It is concluded that the infections with *Cryptosporidium spp.* represents the major cause of diarrhea at pre- and postweaned piglets from the farms included in this study in Timi oara county. Rotaviruses and enteric coronaviruses also contribute to morbidity, either alone or in mixed infections.

Key words: *Cryptosporidium spp.*; Rotavirus; Coronavirus; *Escherichia coli* F5; piglets

**CORRELATION BETWEEN HISTOLOGICAL, SEROLOGICAL AND
EPIDEMIOLOGICAL INVESTIGATIONS IN HUMAN TOXOPLASMOSIS**

**NARCISA MEDERLE¹, GH. D R BU ¹, I. OPRESCU¹, S. MORARIU¹, M.
ILIE¹, K.IMRE¹, IONELA HOTEA¹ O. MEDERLE²**

Facultatea de Medicina Veterinara Timisoara¹
Universitatea de Medicin i Farmacie Victor Babe Timi oara²

Summary

In this paper was performed an investigation in seropositive female with *T. gondii* and to correlate obtained dates with histopathological and immuno histochemical purpose for collected placenta after spontaneous abortion from seropositive females. Of 139 women which requested pregnancy diagnostic and complementary exams, 15,83% (22 cases) proved seropositive to *Toxoplasma gondii*. Epidemiologic investigation of the seropositive patients reveal possible sources and infestation methods, culinary habits, contact with the definitive host, receptivity factors. We believe that *T. gondii* is responsible to some extent for the appearance of inflammatory lesions (chorioamnionitis, intervillitis placentitis, villitis) previously described of the seropositive women which aborted in the first pregnancy term. The absence of tachizoites of *T. gondii* in the hystopathologic sections does not allow us to assert a certain diagnostic of placenta toxoplasmosis. We sustain the correlation between results from serologic exams (presence of Ig M), epidemiologic investigation (relationship with the definitive host: cat) and inflammatory lesions described of the seropositive women wh ich aborted in the first pregnancy term.

**THE IDENTIFICATION OF *TOXOPLASMA GONDII* INFECTION IN SHEEP
FROM CARAS-SEVERIN COUNTY**

IONELA HOTEA, GH. D R BU

Faculty of Veterinary Medicine, Timi oara

Summary

To establish the prevalence of *Toxoplasma gondii* infection in sheep from Caras-Severin County, 580 of serological samples were assayed using ELISA test. The samples were collected from six localities: V.-9 samples, G.-3 samples, I.-3 samples, B.-3 samples, Mi.-3 samples and Me.-559 samples.

Generally, the positivity for *Toxoplasma gondii* infection was more than 60%, with variations between 0 and 77.77%.

PREVALENCE OF *TOXOPLASMA GONDII* ANTIBODIES AMONG WOMEN OF CHILDBEARING AGE IN TIMIS COUNTY

**T. R. OLARIU^{1,2*}, GH. DARABUS³, O. CRETU^{1,2}, OANA JUROVITS²,
EUGENIA GIURA², V. ERDELEAN², I. MARINCU¹, I. IACOBICIU¹,
CRISTINA PETRESCU¹, ANDREA KORECK^{1,2}**

¹Victor Babes University of Medicine and Pharmacy Timisoara, Romania

²Municipal Clinical Hospital, Timisoara, Romania

³Faculty of Veterinary Medicine, Timisoara, Romania

*Corresponding author: Eftimie Murgu Square 2, Victor Babes University of Medicine and Pharmacy, 300041 Timisoara. E-mail: rolariu@umft.ro

Summary

The aim of the present study was to evaluate the prevalence of *Toxoplasma gondii* antibodies in women of childbearing age, in Timis County, Romania. We investigated sera of 184 consecutive women, aged between 14 and 45 years, in whom laboratory tests have been performed at the Municipal Clinical Hospital in Timisoara, Romania. *T. gondii* antibodies were demonstrated in 106 (57.6%) of 184 women and their presence appeared to increase with age: 33.3% in women aged <20 years versus 71.4% in women 40 years of age ($p=0.008$). High prevalence of *T. gondii* antibodies has been determined in women of childbearing age in rural areas (70%) in contrast with those from urban regions (48.1%) ($p=0.002$). Our results suggest a high prevalence of *T. gondii* antibodies among women of childbearing age.

Key words: *Toxoplasma gondii*, women

EFFECTS OF POLIOEL 3 ON SPORULATION AND INFECTIVITY OF *EIMERIA* OOCYSTS

ADRIANA TITILINCU, B. SANTHA, V. COZMA

University of Agricultural Science and Veterinary Medicine Cluj Napoca, Faculty of Veterinary Medicine, Parasitology and Parasitic Diseases Department, 3-5 M n tur Street, Cluj-Napoca, cod 400372, Phone: 0264-596384 int. 165, Fax: 0264-593792, e-mail: titilincua@yahoo.com

Summary

Coccidiosis is a protozoonosis causing important economic losses in poultry industry throughout the world, either due to mortality or to weight losses. In the last years were become established more restriction regarding using in poultry feeding of additives, growth promoters, antibiotics and coccidiostatics. For this reasons the researcher are looking for new solutions, such as acidifiants, probiotics, herb extracts and vaccines. In traditional Chinese medicine, *Artemisia* was used for more then 4000 years in human malaria treatment.

During this study we check the effect of mixed oil herb extract (Polioel 3: *Artemisia anua*, *Hyssopus officinalis* i *Pimpinella anisum*) on *Eimeria* spp. oocyst that infect chickens. The main features followed were percentage of sporulated oocysts, percentage of viable oocysts, population structure and the pathogenity of oocysts after treatment with Polioel 3. Polioel 3 had good effect to 1:100 dilutions. It was noticed 64,4% sporulated oocyst to 96 hours, 33,4% damaged oocysts and a 1,33 lesional score. At 1:25 dilution oocysts of *E. necatrix* were absent and the lesional score to infected chickens after oocysts exposure at this dilution was 0.5. In conclusion we say that the best dilution for Polioel 3 (*Artemisia anua*, *Hyssopus officinalis* i *Pimpinella anisum*) with good results were 1:100 and 1:25.

COMPARATIVE VALUE OF SOME DIAGNOSTIC METHODS IN GIARDIOSIS OF DOGS

ADRIANA JARCA*, VIORICA MIRCEAN**, RALUCA POP**,
ADRIANA TITILINCU**, E. AVRAM***, V. COZMA**

* U.M.F. Oradea

** U.S.A.M.V. Cluj-Napoca

*** D.S.V.S.A. Satu Mare

Contact: Viorica MIRCEAN, Faculty of Veterinary Medicine, No.3 manastur Street, Cluj -Napoca, code 400372, Tel.:
0264-596384; Fax: 0264-593792, e-mail: mirceanviorica@yahoo.com

Summary

The biological material consisted of 184 stool samples from dogs. As diagnosis methods, we used the coprologic examination (Willis and Blagg modified) and the immunoenzymatic test E LISA for detection of coproantigens. The mean extensivity of endoparasitosis at dogs was 86.95%; from a total amount of 184 tested, 160 were positive. The extensivity of giardiasis in dogs was 51.08%, out of the total number of 184 examined subjects, 94 were diagnosed as positive by means of the immunoenzymatic method ELISA. The maximum occurrence of giardiasis (revealed through ELISA test) was registered in dogs with age between 1 and 2 years old. Through the modified Blagg method only a number of 3 positive cases were revealed. Through Willis method there were no positive samples. The conclusion that results from this study is that ELISA had the highest sensibility in diagnosing giardiosis in dogs.

Keywords: dog, *Giardia*, ELISA, coprologic methods.

**EPIDEMIOLOGICAL AND BIOMOLECULAR UPDATES ON
CYSTIC ECHINOCOCCOSIS IN PIGS AND WILD BOARS
OF SARDINIA (ITALY)**

A. VARCASIA , T. PISEDU** , A.P. PIPIA* , G. SCHIANCHI** , A.
MARONGIU** , V. PETRUZZI** , A. SCALA* , G. GARIPPA***

*Dipartimento di Biologia Animale, Sezione di Parassitologia e Malattie
Parassitarie, Facoltà di Medicina Veterinaria, via Vienna n° 2, 07100 Sassari,
Italy.

**Centro di Referenza per l'Echinococcosi e Idatidosi Istituto Zooprofilattico
Sperimentale per la Sardegna, Via Duca degli Abruzzi - 07100 Sassari, Italy.

Corresponding author: varcasia@uniss.it

Summary

The aim of the present study is to evaluate the presence of Cystic Echinococcosis in pigs and wild boars of Sardinia. The survey was carried out on pigs slaughtered in familiar butchereries during the years 2006-2008, while data and hydatid material from wild boars were recovered from hunted animals during the hunting campaign from 2005 to 2007. A total of 342 pigs and 461 wild boars were observed and hydatid disease was revealed respectively in 11.1% and 3.7% of the animals. Fertility was of 7.6% in pigs (68.4% of the positives animals harboured viable cysts). Thirty-nine hydatids isolates from pigs (36) and wild boar (3), were then strain typed after DNA extraction and sequencing of COI and ND partial genes. The common sheep strain was isolated in 37 pigs while the G7 or pig strain was observed in two swine. The wild boar samples harbour all to the G1 strain.

Key words: *Echinococcus granulosus*, Sardinia, strain typing, G7, pig, wild boar.

**DETECTION OF *ECHINOCOCCUS* COPROANTIGENS BY ENZYME -
LINKED IMMUNOSORBENT ASSAY IN FOXES FROM THE NORTH –
WEST OF ROMANIA**

STEFANIA SERES, V. COZMA

University of Agricultural Sciences and Veterinary Medicine, Faculty of
Veterinary Medicine, 3-5 M n tur Street, 400372, Cluj - Napoca, Romania
seresstefania@yahoo.com

Summary

The red fox (*Vulpes vulpes*) is the most widespread and abundant predator on earth, living in almost all habitats of the Northern Hemisphere, such as woodlands, mountains, deserts or even suburban and urban environments. Moreover, the red fox is the main carrier and vector species of the most important endemic zoonoses, as rabies, fox tapeworm *Echinococcus multilocularis*, *Toxocara canis* and *Trichinella* spp. This makes the fox a highly controversial and emotional species with great potential public involvement and of fundamental importance as far as management issues are concerned. The expansive spread of *E. multilocularis* in Europe from endemic areas to territories of surrounding countries has not been stopped, and there is an important concern about the emergence of this cestode in Romania. We analyzed red fox data from a north-western area of Romania close to the easternmost margin of *E. multilocularis* habitat in Europe, with the aim to detect the emergence of the cestode in this area. 28 fox feces were analysed using the coproELISA technique for the detection of *Echinococcus multilocularis* and *Echinococcus granulosus* coproantigens. 5 foxes (18%) were found positive for *Echinococcus* spp. This is the first record in Romania for the detection of intestinal echinococcosis in foxes using the coproELISA technique.

Key words: *Echinococcus multilocularis*; *Echinococcus granulosus*; Red fox; coproELISA; North-West Romania

**THE CYATHOSTOMINE LARVAE POLLUTION DEGREE ON PASTURE
FROM RADIMNA VILLAGE, CARA -SEVERIN COUNTY**

**S. MORARIU¹, GH. D R BU ¹, I. OPRESCU¹, NARCISA MEDERLE¹, M.
ILIE¹,
D. STEPANESCU², SILVANA MIHAILOVICI¹**

¹ Faculty of Veterinary Medicine, Timi oara, sorin.morariu@fmvt.ro;

² DSVSA Re i a, Cara -Severin

Summary

Cyathostomines are the most widespread nematodes parasitizing horses. The paper describes the prevalence of cyathostomine and other nematode larvae on the pasture of Radimna village from Cara -Severin County. In the grasses samples collected from the pasture of Radimna village there were identified the following species of nematodes: cyathostomines, *Strongylus equinus*, *Strongylus edentatus*, *Strongylus vulgaris*, digestive strongyles of other species, and free-living nematodes, respectively. The population peaks of L3 of cyathostomines were recorded on autumn (45.25% in October) and spring (35.71% in May) months. The highest prevalence was recorded in free-living nematodes during the entire study period, and the lowest prevalence was observed in *S. equines* and *S. vulgaris* species.

Key words: cyathostomine and other nematode larvae, prevalence, pasture .

THE ELECTRONO - MICROSCOPIC CHARACTERIZATION OF SOME HELMINTHS FOUND IN BIRDS

M.S. ILIE¹, GH. D. R. BUȘU¹, I. OPRESCU¹, S. MORARIU¹, NARCISA
MEDERLE¹, ALINA ILIE¹, K. IMRE¹, D. M. NDI A², O. MEDERLE³

¹Faculty of Veterinary Medicine Timișoara,

²Faculty of Animal Husbandry and Biotechnologies Timișoara,

³Faculty of Medicine and Pharmacy Victor Babeș Timișoara

marius.ilie@fmvt.ro

Summary

In this paper the characterization by the mean of the electrono-microscopic scanning (SEM) of some species of helminth parasites in domestic poultry have been presented. So, we have studied individuals belonging to the species *R. cesticillus*, *R. tetragona* and *R. echinobothrida*, and, among nematodes, the species *Ascaridia galli*, *Heterakis gallinarum* and *Cheilospirura hamulosa*, respectively. SEM is a modern method who may define some unclear aspects regarding the morphological characters used for helminthes identifications. In Romania SEM was used for the first time to identify some parasite helminthes in poultry. An important issue on the research and parasite study evolutions is to point out of the main morphological characteristics of some helminthes that affect poultry.

**THE *IN VITRO* STUDY OF THUJA OCCIDENTALIS ALCOHOLIC EXTRACT
AGAINST LARVAE OF GASTROINTESTINAL NEMATODES**

**I. OPRESCU¹, D. DRAGO ², GH. D R BU ¹, S. MORARIU¹, NARCISA
MEDERLE¹, D.G. VASILE¹,**

¹Faculty of Veterinary Medicine Timi oara

²University of Medicine and Farmacy Timi oara

Summary

The tests have been performed at the Parasitology laboratory of the Faculty of Veterinary Medicine Timi oara. The *Thuja occidentalis* (1%, 5 % and 10 % sol.) alcoholic extract was obtained in the laboratorie of the University of Medicine and Farmacy Timi oara, and the L₃ stage of *Trichostrongylus* have been cultivated by the metodes acknowledged in parasitology. The L₃ stage *Trichostrongylus* (n=95) have been exposed for 60 minutes to the *T. occidentalis* 1 %, 5 % and 10 % solution, folowing their viability during the experiment. The obtained resultes shown a different efficiency between the solutions used in accordance with the concentration of the solution and the time of exposure: the maximum efficiency of the 10% sol was after 40 minutes, and the maximum efficiency for the 5% sol was after 60 minutes.

The unmeasured tests of statistical interpretation (Kruskal -Wallis and Mann-Whitney) shown a significant difference between the 1% sol and the 10% sol of *Thuja occidentalis*, respectively.

Key words: *Thuja occidentalis*, efficiency, trichostrongilus larvae.

PRELIMINARY PARASITOLOGY RESEARCH IN WILD RABBIT IN VOJVODINA REGION (SERBIA)

I. STOJANOV, I. PUŠIĆ, JASNA PRODANOV, R. RATAJAC,
DRAGICA STOJANOVIĆ

Scientific Veterinary Institute "Novi Sad", Rumena ki put 20, Novi Sad, Serbia

Summary

The importance of wild animals is seen in the fact that their presence is an indirect indicator of pollution in an ecosystem. A reduced number of wild animals may indicate that the changes in the environment happened and that some infective diseases may be present. It seems that continual health surveillance of wild animals is necessary in order to have an insight into the situation. The subject of this paper is examining parasitology in the feces of shot rabbits in several hunting areas in southern part of Serbia (Vojvodina). The aim of this paper is to detect presence of parasitic flora in wild rabbits, determine the present species, see if there are differences between the categories we formed and examine if the presence of parasites is the reason of reduced number of rabbits on the field. The material for examination were the feces from the rabbits from several hunting area in Vojvodina. The rabbits were classified according to age and sex. A standard method of flotation was used, and for determining the number of endoparasite eggs McMaster method was used. A total of 42 feces was examined and in all of them *Trichostrongylus retortaeformis* and *Graphidium strigosum* were discovered, as well as presence of different *Eimeria spp.* When examining the presence and number of parasites no difference was detected within the examined groups. The results point out that within this region there are the same species of parasites found in wild rabbits and that it is almost always the identical. This leads us to a conclusion that natural borders have not prevented spreading of parasites and that there is an immunology balance that may hide a real situation that causes reducing their number.

Key words: wild rabbit (*Lepus europeaus*), parasites, *Trichostrongylus retortaeformis*, *Graphidium strigosum*, *Eimeria spp.*, sex, age

MASTOCYTOMA WITH CUTANEOUS INVOLVEMENT IN A PITBULL TERRIER - A CASE REPORT

O. MEDERLE, NARCISA MEDERLE¹, M. RAICA

Universitatea de Medicin i Farmacie Victor Babe Timi oara, Catedra de
Histologie i Citologie
Facultatea de Medicina Veterinara Timisoara, Catedra de Parazitologie¹

Summary

Mast cell proliferations are more common in dogs than in humans. Mastocytosis is a rare disorder characterized by mast cell proliferation. Of the different clinical types, the localized variety called mastocytoma is even rarer and constitutes only about 15% of the total cases of cutaneous mastocytoses. Throughout the literature, the majority of reports are of a generalized variety called urticaria pigmentosa. An 11 year old castrated female pitbull terrier has shown nodular and ulcerative cutaneous lesions on the thorax and rhinostilus, with a history of one year. First clinical and dermatological examinations pointed towards a dermatological condition. The dog was treated locally with topic corticosteroids. After 10 months of unsuccessful therapy, a cutaneous biopsy was sampled, embedded in paraffin, sectioned at 5 μ . Sections were stained with usual hematoxylin – eosin, toluidine blue at pH3, alcian blue – safranin at pH1,42 methods, and also with immunohistochemical methods using anti – vimentin, anti – CD117, and anti – mast cell tryptase (MCT) antibodies in LSAB+ system. Macroscopic examination of the tumor revealed nodular ulcerated lesion with areas of necrosis and hemorrhage. Morphological examination revealed large areas of round tumor cells accompanied by areas of necrosis, with normal suprajacent epidermis and annexes. Tumor cells had granular cytoplasm, mostly orthochromatic for toluidine blue staining. Using alcian blue – safranin, tumor cells were found to have granules into their cytoplasm, mostly alcian positive and mixed, but some of the tumor cells had safranin positive granules within the cytoplasm. Tumor cells were positive for vimentin with strong cytoplasmic pattern and the inflammatory infiltrate cells were negative. Tumor cells were weakly positive with cytoplasmic pattern for CD117, and positive positive, with cytoplasmic pattern for MCT. The histochemical and immunohistochemical findings support the pathologic diagnosis of mastocytoma.

Key words: canine, mastocytoma, mast cell tryptase, histochemistry, immunohistochemistry

EPIDEMIOLOGICAL ASPECTS OF OTITIS EXTERNA IN DOGS

VIORICA MIRCEAN, M. MIRCEAN, RALUCA GAVREA, V. COZMA

U.S.A.M.V. Cluj-Napoca

Contact: Viorica MIRCEAN, Faculty of Veterinary Medicine, No.3 manastur Street, Cluj-Napoca, code 400372, Tel.: 0264 -596384; Fax: 0264-593792, e-mail: mirceanviorica@yahoo.com

Summary

According to etiology, we noticed that 26% of the otitis were parasitic, 32% allergic, 8% bacterial and each of the following were 2%: tumor, metabolic, autoimmune and cornification disorders. The parasitic agents were represented by *Otodectes cynotis* (69,23%), *Demodex canis* (23,08%) and *Sarcoptes scabiei var. canis* (7,69%). The mycotic otitis were divided in two: 69,23% were idiopathic and the rest of 30,77% were caused by an association of yeasts and bacterial agents. The incidence of otitis externa according to race was different, as follows: German Shepard-20%, Boxer-14%, Common race-14%, Caniche-10%, Labrador-8%, West Highland White Terrier 4%, Bull Terrier-4%, Rottweiler-2%, Amstaff -2%, Bichon Maltese-2%, Alsacian Shepard-2%, Yorkshire Terrier-2%, Terra Nova-2%, Fox Terrier -2%, Belgian Shepard-2%, English Bulldog-2% and Cocker Spaniel-2%. Otitis externa occurred to dogs either in association with other diseases (4%), either as a consequence of subjacent diseases (44%).

**THE SMALL HIVE BEETLE: A PEST OF HONEY BEE COLONIES
- REVIEW ARTICLE -**

I. COSOROABA¹, LIDIA CHITIMIA², M. ILIE¹

¹Faculty of Veterinary Medicine Timi oara,

²College of Veterinary Medicine Guoangzhou South China Agricultural University
cosoroaba@yahoo.com

Summary

Small hive beetles. *Aethina tumida*, are honeybee parasites native to Africa, where they are a minor pest only. In contrast, the beetles can be harmful parasites of European honeybee subspecies. Resistance of African subspecies to infestations is probably due to quantitative differences in a series of behaviors such as absconding, aggression, removal of parasite eggs and larvae and social encapsulation.

Because invasion with *Aethina tumida* is included in "Planul actiunilor sanitare-veterinare" from Romania, we considered the presentation of this pest necessary.

Here we summarize the literature on the biology and the current distribution of the small hive beetle.

Key words: *Aethina tumida*/honeybee/invasion management

THE PREVALENCE OF MALLOPHAGEAN SPECIES ON GALLINACEOUS BIRDS FROM CARAȘ-SEVERIN COUNTY

S. MORARIU¹, P. BRIL², I. COSOROABĂ¹, GH. D. R. BUȘ¹, I. OPRESCU¹, NARCISA MEDERLE¹, M. ILIE¹, FLORICA MORARIU³

¹ Faculty of Veterinary Medicine, Timisoara, sorin.morariu@fvmv.ro

² DSVSA Reșița, Caraș-Severin;

³ Faculty of Animal Husbandry and Biotechnologies, Timisoara

Summary

This study describes the abundance of mallophagean lice species in Caraș-Severin County. Lice were collected from 30 localities, and from each locality five households were investigated. A total of 3,381 mallophagean lice were collected, and six species were found: *Menopon gallinae*, *Menacanthus cornutus*, *Eomenacanthus stramineus*, *Gonicotes gallinae*, *Goniodes gigas* and *Lipeurus caponis*, respectively. *Goniodes gigas* species was identified for the first time in Caraș-Severin County, but at a lowest prevalence (1.34%). The highest prevalence was noticed for *Menopon gallinae* and *Gonicotes gallinae*, which had 60.33% together.

Key words: mallophagean lice species, prevalence, Caraș-Severin County.

THE SIZE OF CULICOIDES POPULATION AND INDE NTIFIEND SPECIES ÎN CORELLATION, ELEMENTS FOR RISK ANALIZE IN BLUETONGUE

P. MUNTEAN

D.S.V.S.A. Timi , Martir Caceu Sister str. No. 4, Timisoara

Summary

This paper present the results of the study made in 2007 in correlation with Surveillance actions pr ogram about vectors monitories (Culicids) and natural parameters (wind, temperature and humidity).

We proceed for weekly capture of vectors (one/week) with a stabile trap, for one year, in a target location (herghelia Izvin) and systematic vector capture w with three mobile traps, during all season with intense activity for vectors (May-Oc-tober) in 14 units with risk from Timis County.

By the other side, because don't exist yet in our propriety, HOBO meteostations and GPS for geographic coordinate recolding (latitude, longitude, altitude) we obtain meteorological dates from Meteorological and Hydrological Timis Institute. This study was made for observe the influence of natural factors on the size and activity of culicid insects populations, vectors in Bluetongue for many different animals species. Hydro-meteorological stations were fixed in different areas of Timis Country and have sensors for air and soil temperature, humidity, rainfall and wind speed recording. Air and soil temperature, relative humidity and wind speed was in general factors with evident influence in dimension and vitality of insect's populations. Collect identification and than the data analyze about ambient conditions and captured of insects has utility in risk evaluation in appearance of bluetongue in Timis County and our country. Was identified three culicids species: C. obsoletus, C. pulicaris and C. imicola.

Monitories in etapes the culicids number from one capture give the conclusion the biggest Culicid number is C. obsoletus, than C. pulicaris and isolate C. imicola, recording in samples collected from early night to early morning, in association with intensity light changing .

Key words: bluetongue, culicoides

**THE DYNAMICS *CULICOIDES* INSECT POPULATIONS IN DIDACTICAL
AND EXPERIMENTAL STATION TIMIȘOARA, BETWEEN MAY AND
SEPTEMBER 2005**

**I. OPRESCU, GH. DRĂBĂŢĂ, S. MORARIU, NARCISA MEDERLE, M. ILIE,
Z. PANICI**

Faculty of Veterinary Medicine Timișoara

Summary

Investigations were carried out between May and September 2005, in Didactical and Experimental Station of Timișoara, more precisely in the shelter for horses. Particular attention was paid to aspects concerning identification of captured species and population dynamics of these insects in relation with abiotic factors (temperature, wind, precipitations) that were observed.

During the investigations that were carried out, the following species were found: *Culicoides obsoletus*, and *C. pulicaris*. Particular attention was paid to the population dynamics of the *Culicoides obsoletus*, and *C. pulicaris* species but also of the other species of culicoides, which are in significant positive correlation with medium and maximum temperature $p < 0,01$ and in significant negative correlation with wind speed $p < 0,05$;

Among the abiotic parameters that were observed, the maximum temperature gives most explanations on the variability of the total number of culicoides, while the wind speeds the less.

Key words: *Culicoides obsoletus*, *C. pulicaris*, population dynamics, abiotic parameters.

**RESEARCH IN THE CLASSICAL PARASITOLOGY SECTION OF THE
DEPARTMENT OF VETERINARY SCIENCE, UNIVERSITY OF KENTUCKY,
LEXINGTON, KENTUCKY, USA**

**E.T. LYONS¹, SHARON C. TOLLIVER¹, SANDRA S. COLLINS¹, S.
MORARIU²**

¹Maxwell H. Gluck Equine Research Center, Department of Veterinary
Science, University of Kentucky, Lexington, Kentucky 40546 -0099;

²Faculty of Veterinary Medicine, Calea Aradului 119, Timisoara 300 645,
Romania

Summary

This paper describes the research activities of the classical Parasitology section of the Department of Veterinary Science, University of Kentucky, Gluck Equine Research Center, Lexington, Kentucky, USA, over a more than 50 year period. Pioneer research has been conducted on resistance phenomenon against equine small strongyles, sheep stomach worms and equine ascarids. New targets are determining which cyathostomin species are the most resistant to the newest anthelmintic drugs, and what the course of the therapy is. But the paper also describes the wide and important research on endoparasites in otariid pinnipeds conducted by Professor Eugene Lyons and his colleagues in Alaska and California. This paper also presents some of the important publications of the Parasitology section.

EVALUATION OF RECTAL TEMPERATURE IN CATS BEFORE, DURING AND AFTER OVARIECTOMY SURGERY

V. ARDELEAN, A. ARDELEAN, C. MIRCU, GH. BONCA, H. CERNESCU, SIMONA ZARCULA, GABRIELA KORODI

Faculty of Veterinary Medicine Timisoara

Summary

In this study were included 95 cats, submitted to spaying surgery, grouped as follows considering their age: G1: 6 – 12 weeks (n=26), G2: 4 – 5,5 months (n=25), G3: 6 – 12 months (n=22) and older than 2 years (G3, n=22).

Anesthesia consisted in intramuscular injection of Aceprom (0,15 mg/10 kg b.w.) and Ketamin (15 mg/1 kg b.w.). Surgery was performed in two different environmental conditions: 16 – 18°C (T1) and 24 – 26°C (T2). Two surgical techniques were used, differing in the length of incision carried on line alba: 5 – 6 cm and 1 – 1,5 cm.

At T1 conditions, G1 cats had average temperature values of 38.5, 37.1 and 35.3°C, and for T2 values of 38.6, 38.1 and 37.3°C, registered before (A), during (B) and after surgery (C).

G2 cats displayed for T2 38.6, 37.2 and 35.9°C, and respectively 38.6, 37.6 and 36.5°C, for A, B and C moments.

G3 cats displayed for T1 38.6, 37.3 and 36.8°C, for T2 38.6, 38.1 and 37.3°C, for A, B and C moments.

At T1, for G4 cats were registered 38.6, 37.6 and 36.5°C respectively 38.6, 38.0 and 36.7°C at T2, for A, B and C moments.

Early age ovariectomy represent an easy to do surgery, with no side effects, if hypothermia, hemorrhage and hypoglycemia are prevented. Small size (1 – 1,5 cm) incision preserves body temperature with 0,5°C, compared to large incision. If environmental temperature is colder, body temperature decrease with more than 3°C.

Key words: Cats, anesthesia, rectal temperature, ovariectomy.

TOXIC EFFECTS OF PYRETHROIDS USED FOR VAROOSIS TREATMENT IN BEES

MIHAELA ELENA ANDREESCU*, V. CRIVINEANU, G.V. GORAN**,
M.D. CODREANU****

*Sanitary Veterinary and Food Safety Direction Bucharest

**Faculty of Veterinary Medicine Bucharest

Summary

This study goal was to observe tau-fluvalinate effects in bees, the active substance of the most effective product used for varoosis control (Apistan).

In this study, if varoosis treatment in bees with Apistan respected the period of therapy (generally, in autumn), but also the number of application (2 to 3), therapeutic efficacy of this product is very high, over 95%.

In the apiaries, where there were realized preventive treatments with Apistan and than t he normal treatment, it was observed that the pyrethroid contained in this product accumulated in bees with a 0.054 µg/bee average value, a level that it was reflected also in the high mortality (49%), statistically significant.

STUDIES ON CYPERMETHRIN POISONING IN BEES

MIHAELA ELENA ANDREESCU*, V. CRIVINEANU, G.V. GORAN**,
M.D. CODREANU****

*Sanitary Veterinary and for Food Safety Direction Bucharest,

**Faculty of Veterinary Medicine Bucharest

Summary

This study goal was to observe the effects of cypermethrin poisoning in bees, depending on the place of apiaries location by rape culture treated with Fastac (in dose of 25 g a.s./ha).

The samples sampled from the apiaries located to small distances from rape cultures treated with Fastac, both cypermethrin dose determined (0.054 µg/bee), and average value of mortality in bees were higher comparing to samples from apiaries located to high distances from treated rape cultures (0.026 µg/bee, and average value of mortality – 48.3%).

Repellent effect stops starting from the second day after Fastac treatment, and bees pollen harvesting activity become again normal. This is the cause that determines an mortality in bees higher average value/study group in the second day after phitosanitary treatment, comparing to the other days of study.

THE EMPHASIZE OF SOME ENZYMATIC REACTIONS IN SOMATIC CELLS FROM NORMAL AND ABNORMAL MILK

DIANA ARGHERIE

Faculty of Veterinary Medicine Timi oara

Summary

The milk and the somatic cells present a series of enzymes, which play a leading part in indication of the mammary gland resistance or susceptibility for pathogenic microorganisms' infections. The aim of this study was to point out the presence and the variations of some enzymes activity in somatic milk cells proceed from of healthy and clinical mastitis infected cows. The presence and the enzymatic activity variations were appreciated after the application of three histological enzymatic reactions on normal and abnormal milk smears, respectively: Dorfman-Epstein (for alkaline phosphatase), P.A.S. (for carbohydrates) and Sato (for peroxidase activity). The histological stain methods showed that not always the increase of the somatic milk cells number and the render evident of the enzymatic activities represents a bad sign. On the contrary, in certain circumstances, these changes may represent a very pronounced general reactivity, which can reduce the tendency of some pathogenic microorganisms' multiplication, in the udder.

**STUDY OF THE MARE'S GENITAL TRACT CLINICAL CHANGES
BETWEEN ADMINISTRATION OF HCG AND OVULATION**

RUXANDRA BADEA, I. A. BÎR OIU, A. DIACONESCU, A. VI LARU

Faculty of Veterinary Medicine Bucharest, Splaiul Independen ei 105

Summary

Ovulation can be induced artificially or hastened during the transitional or the breeding season by exogenous LH-like (hCG) or LH-releasing preparations (GnRH). The ovulation induction agent hCG can be used to advance ovulation. Induction of mare's ovulation is not the most appropriate term in this context because normally a follicle ≥ 35 mm will ovulate spontaneously within the next 2 to 4 days.

THE DETERMINATION OF BACTERIAL ENDOTOXIN CONCENTRATION OF THE AIR FROM THE SWINE SHELTERS

ELENA-LUIZA B DIC*, AURORA S L GEANU**, L. LERESCU**,
DANIELA RUSEA***, ELENA POTECEA*, MONICA PÂRVU*, ELENA
STAIKU****

*Veterinary Medical University Spiru Haret

** Cantacuzino Institute

*** Public Health Institute

****Veterinary Medical University Spiru Haret

Summary

The research was done on a swine farm from C I ra i district in order to determine and quantify the bacterial endotoxin of the air from the animal shelters. There were taken 12 samples of air from 2 swine shelters to determine the endotoxin concentration, the quantity of dusts in suspension as well as to identify the bacterial and fungus species (airmicroflora).

The bacterial endotoxin concentration of the shelter's air was determined by chromogenic Limulus assay (Limulus Amoebocyte Lysate – LAL). The total dusts quantity was calculated through filters estimation, after the sampling of air samples by electric pumps. For airmicroflora identification was used the passive sedimentation method of the air from Petri plates. Through bacteriologic and mycological analysis was isolated and identified a variety of bacterial and fungus species. It was calculated the total number of germs/m³ air (NTG/m³ air). On both swine houses were correlations between the total dusts quantity, total number of germs and the bacterial endotoxin concentration of the air.

Key words: dusts in suspension, bacterial endotoxin, Limulus Amoebocyte

CATARACTS SURGERY IN DOG BY EXTRACAPSULAR EXTRACTION, MINI-NUC METHOD

F. BETEG, A. MUSTE, N. MATE , L. OAN

University of Agricultural Sciences and Veterinary Medicine Cluj -Napoca, Faculty of Veterinary
Medicine, Surgery Department, Str. Manastur no.3 -5, cod 400372,
Cluj-Napoca, Romania, BTG@email.ro

Summary

Cataracts in dogs belong to the eye pathology. It occur whatever the breed and age of the dog. Its etiology is equivocal. The clinical sign consists in the opacities of the lens, resulting in progressive loosing of the vision on one or both eyes. Men were preoccupied over the years to reestablish or at least to improve the vision of the affected dog by conservative treatment or surgery. The results of these treatments and efforts aren't always the desired ones. The efforts were made in an attempt to reestablish (or at least to improve) the vision of man's unselfish companion or defender, the dog, knowing the inefficacy of the medical conservative treatment. It is only the cataract surgery that can be useful. Although the opinion of the national and international specialists concerning the etiopatogeny, the opportunity for lens extraction, the technique, the costs, the instruments and materials needed are disputed, I view it as a justified intention because of the aspects stated above. We choose out from the methods described in the main literature on the subject the extra -capsular extraction of the cataracts by the mini-nuc method, because of the availability of the instruments and the surgery technique and the results consisting in improvement of the eye vision when retina tunic is not affecting.

Key words: cataracts, lens, extra-capsular extraction, dog.

**DIFFERENT ANESTHESIA PROTOCOLS USED FOR EXPERIMENTAL
SWINE SURGERY**

**I. A. BÎR OIU, RUXANDRA BADEA, PATRICIA MIRELA SÎRBU -
BOE I^x,
C. EFRIMESCU^x**

Faculty of Veterinary Medicine Bucharest, Splaiul Independen ei 105

^x Fundeni Clinic Institute Bucharest

Summary

This study presents some results obtained after the practical experience developed during an important research project: IGNITIS Project - "Tisular engineering techniques with application in partial intestinal reconstruction". This project was conducted by colleagues from Fundeni Clinical Institute and had a part of practical training and research on rats and swine.

CYTOGENETIC RESEARCHES REGARDING *IN VIVO* NATURAL STICKER TUMOR EVOLUTION AFTER USING OF CYTOSTATIC DRUGS

GH. BONCA, V. ARDELEAN, G. OTAVA, C. MIRCU, SIMONA ZARCULA, GABRIELA KORODI, R. URIAN, ILINCA FRUNZ

Faculty of Veterinary Medicine Timisoara

Summary

Through specific cytogenetic studies, the evolution of a Sticker tumor on 5 years -old crossbred bitch, was studied. Since diagnostic moment and after weekly administration of four cytostatic doses (5 flor uracil) the study was performed. Biopsies were taken to asses s the evolution number and chromosomes integrity from metaphase cells through cytogenetical smears.

Microscopic analysis of samples revealed at the beginning a specific tumor chromosomal stemline with 58-60 chromosomes, among which 16-18 were biarmed, and the rest of them were acrocentric. None metaphasic cell with 78 chromosome, 76 autosome was found, all were acrocentric and metacentric gonosomes.

Key-words: Cytogenetic studies, Sticker tumor, bitch.

EPIDEMIOLOGICAL ASPECTS OF AVIAN MYCOPLASMOSIS DURING 2007

DANIELA BOTU¹, VIRGILIA POPA¹, GH. STRATULAT², N. C. TAN³

¹Pasteur Institute Bucharest, ²SC Farmavet Bucharest, ³FMV Timisoara

Summary

Serum samples from poultry of various ages were analysed for detection of antibody against *Mycoplasma gallisepticum* and *Mycoplasma synoviae*, using ELISA kits. There was not detected antibody specific to both *Mycoplasmas* for poultry younger than 14 weeks old. More than 80% of adult poultry were serologically positive to both *Mycoplasma*. The results suggest a *M. synoviae* high prevalence for poultry older than 36 weeks. Poultry vaccinated against *M. gallisepticum* (8 and 24 weeks post vaccination) had protector levels of antibody. One day old chicken had maternal antibody with titers that assure the flock protection.

There was set up a duplex PCR variant that permits concomitantly detection of *M. gallisepticum* and *M. synoviae*.

Key words: *Mycoplasma*, poultry, serological diagnosis, antibody, PCR

SEROPREVALENCE OF MAEDI-VISNA IN SHEEP

**BRANKA VIDI , Ž. GRGI , SARA SAVI -JEV ENI , M. MALJKOVI ,
DUBRAVKA MILANOV**

Scientific Veterinary Institute "Novi Sad", Rumenacki put 20, 21 000

Novi Sad, Serbia

Progressive pneumonia in sheep and maedi are terms used for chronic viral disease in sheep, which appears as a progressive pneumonia. Maedi –visna virus can cause a disease called visna, which is an illness of nervous system with the signs of paresis and paralysis. Beside pneumonia, arthritis can appear mastitis and weakness of lambs.

The first reports on this disease are from South Africa and USA (3, 4, and 5) and today it is known in most countries where sheep are raised. Sheep and goats are the only species known so far, that are susceptible to this infection.

Incubation period is long, and most of the sheep with clinical symptoms are over 3 years old. Symptoms of the disease develop slowly and hidden. The first symptoms are apathy, then weight loss and exhaustion. Respiratory symptoms are not visible in the first stadium of the disease, but if the herd is moving, ill sheep stay back behind the others. Cough can appear, nose secretion, and pneumonia as the result of a secondary bacterial infection. Body temperature is normal. Clinically, the disease lasts from 3 to 10 months, but the end is always lethal. In some sheep there are no respiratory disorders and the main symptoms are weight loss and weakness of the sheep.

ASPECTS REGARDING ARTERIAL HYPERTENSION IN DOG AND CAT

M.C. BR SLA U, DANIELA E. BR SLA U, SILVIA JOI A

Faculty of Veterinary Medicine Bucharest

Researches regarding the recognition and importance of arterial hypertension in pets (dog and cat) have developed a lot in the last 15 years and, as a consequence, in 2007, the „Guidelines for the Identification, Evaluation, and Management of Systemic Hypertension in Dogs and cats” (Brown S. i col.) was elaborated.

**TESTING OF SENSIBILITY AND SPECIFICITY OF *IN VIVO* RESISTANCE
INVESTIGATION METHODS**

M. CERNEA *, CRISTINA CERNEA *, S. RAILEANU*, A. GUT, R.
SILBERG*, ANCA MARCULESCU *, L. MADEIRA DE CARVALHO*****

*University of Agricultural Sciences and Veterinary Medicine. Faculty of Veterinary Medicine 400372
Cluj-Napoca, Street M n tur no. 3-5, Romania, e-mail: [mscernea@yahoo.com](mailto:mscerne@yahoo.com)

**Tehnickal University Cluj-Napoca, Automatics Faculty

***Universidade Tecnica de Lisboa, Faculdade de Medicina Veterinaria

Summary

In prevention and treatment of equine strongylidoses, an essential factor consists in finding precise diagnostic tests, which avoid errors „*by missing*” which can intervene in the case of applying standard methods. Establishing a certitude diagnostic in strongyls infestations of equines is meant to help the veterinarian in the exact identification of the species involved, establishing the real degree of infestation, as well as in elaborating an adequate and efficient therapy protocol, which, in turn, helps preventing and reduction of contamination risk of other equines, during animals' feeding and drinking.

VARIATIONS IN SOME BIOCHEMICAL INDICATORS OF BLOOD PLASMA OF LAYING HENS DEPENDING ON THE HOUSING SYSTEM

D. CHIRIL

Faculty of Veterinary Medicine Timisoara

Summary

The aim of this study was to compare biochemical indicators of blood plasma of laying hens housed in two different housing systems (conventional cage system and deep litter system). In each housing system, 50 ISA Brown laying hens were observed during the laying period from week 20 to 42 of age. Blood samples for determination of biochemical indicators in plasma were collected during this period in week 20, 26, 35 and 42. Indicators of blood plasma metabolic profile of laying hens of all monitored groups during the laying period ranged in intervals stated for healthy animals. In some cases, significant differences between housing systems were found, however, these differences do not give clear evidence of the influence of the housing system on the health of animals. The differences were apparently due to different efficiency of each group during the laying period.

Key words Housing system, AST, AMYL, Uric acid, Laying hens

CADMIUM, ZINC, IRON AND SELENIUM DISTRIBUTION IN LIVER AND KIDNEY IN EXPERIMENTAL OXIDATIVE STRESS AND ALOE EXTRACT TREATED RATS

IULIANA CHI -BUIGA, LUCIA OLARIU, MIHAELA PUP, CAMELIA TULCAN

Faculty of Veterinary Medicine Timisoara,

Summary

Cadmium competes with copper and iron for the metallothioneine SH groups and for the active centers with SH groups of some enzymes. The aim of this paper is to present the influence of an aloe extract administration on the toxic effects of Cd and the relation with other microelements, in rats` liver and kidney. A 20 ppm/ kg b.w Cd single dose administration, affects either copper, iron and selenium levels in rats` liver and kidney. Aloe extract administration diminished the toxic effect of Cd.

Key words: cadmium, copper, zinc, iron, selenium, aloe, liver, kidney, rats

**DETERMINATION OF AFLATOXIN B1 IN CEREAL -BASED FEED BY A
HIGH-PERFORMANCE CHROMATOGRAPHIC METHOD**

**ANA CI MILEANU, GEORGETA VOICU, VIVIANA CIUC ,
MINODORA IONESCU**

Pasteur Institute, Bucharest, Romania

Summary

For routine testing of AFB1 in cereal feed samples, a reverse -phase high-performance liquid chromatographic (HPLC) method, with immunoaffinity column clean-up and post column derivatization was developed. The method is suitable for the investigation of AFB1 content in the toxicologically significant range corresponding to 7.5-75 ppb.

**DETERMINATION OF OCHRATOXIN A IN CEREAL-BASED FEED BY
A HIGH-PERFORMANCE CHROMATOGRAPHIC METHOD**

**ANA CI MILEANU, GEORGETA VOICU, VIVIANA CIUC ,
MINODORA IONESCU**

Pasteur Institute, Bucharest, Romania

Summary

For routine testing of ochratoxin A (OTA) in cereal feed samples, a reverse-phase high-performance liquid chromatographic (HPLC) method, with immunoaffinity column clean-up was developed. The method is suitable for the investigation of OTA content in the toxicologically significant range corresponding to 1.5-30 ppb.

**IN VITRO ACTIVITY OF SOME *EUPHORBIA CYPARISSIAS* TINCTURES
AGAINST POULTRY MITES**

**R.T. CRISTINA¹, S. MORARIU², EUGENIA DUMITRESCU¹,
ANDREEA CZISMADIA¹**

¹ Dept. of Veterinary Pharmacology and Pharmacy FVM Timisoara

² Dept. of Veterinary Parasitology, FVM Timisoara

Summary

An *in vitro* activity of different tincture concentrations of *Euphorbia cyparissias* against poultry mites' study it is proposed in order to bring data about bio control and acaricidal effect of tinctures on different stages of *parasite's* viability. Concentrations of hydro-alcoholic herb extracts used in this experiment were of 10, 5, 2 and respectively 1% and identified parasitic species have proven to be *Argas persicus*.

Collected ticks (nymphs and adults) were maintained for 48 hours before experiments to 21±1°C at 55±5 % relative moisture and for 14h:10h (light/dark) photoperiod, and four experimental and one control lot of 20 individuals (for each lot) constituted. Ticks were scattered in Petri dishes (simulating living conditions) and the studied extract was uniformly sprayed over plates. After 10 minutes direct contact with tinctures, saturated filter papers were removed and watching for *Argas* was accomplished at 5, 15, 30 minutes, respectively at 1, 2, 12 and 24 hours after contact, following ticks viability after the loco motor's activity, amplitude and appendices' frequency, ortho and versostase and death. It is to notice that between two and 12 hours tick population found dead was quite important being between 30-55% for T1%, 40-60% for T2%, 95-100% for 5% and respectively 100% for T10%.

Statistics for time and concentration done after Descriptive statistics and Anova test showed the practical significance of the results, concluding that the 5 and 10% concentrations are efficient, the critical period when the mites' immobility can be considered irreversible being comprised between 2 and 12 hours after the contact with the herb tinctures (28.57 - 105.42 to 2 hrs., 37.83 - 116.16 to 12 hrs.).

Key words: *Euphorbia*, *extracts*, *Argas*, *in vitro*, *efficacy*.

THE DEVELOPMENT OF AVIAN RESPIRATORY MYCOPLASMOSIS IN A POULTRY FARM

C. CUMPN OIU

Faculty of Veterinary Medicine Timisoara

Summary

The high incidence of infectious diseases in poultry farms constitutes an impediment in obtaining optimum productions, by high mortality, carcasses depreciation and the decrease in egg production.

Among the diseases with important negative consequences, respiratory mycoplasmosis plays an important part regarding high losses among broiler chickens as well as the chronic evolution of the disease which represents an important impediment in the diagnosis of other pathogenic processes that evolve in the poultry farms.

Key words: respiratory mycoplasmosis, *poultry*, *incidence*

**THE INCIDENCE OF MICOTOXINS IN FEED IN THE TIMIS COUNTY IN
THE PERIOD 2004-2007**

L CR MIOARA DAMIESCU^{*}, ALEXANDRA TRIF^{}**

^{*} Sanitary Veterinary and Food Safety Directorate Timis

^{**} Faculty of Veterinary Medicine Timisoara

Summary

Between 2004 and 2007 in the mycotoxicology laboratory from the Sanitary Veterinary and Food Safety Directorate Timi 479 samples were analyzed from mycotoxicological point in the period between 2004 and 2007: 247 samples of raw materials and stuffs for mixed feed (RS), 197 sample of mixed feeds (MF), 37 samples protein vitamin mineral concentrates (PVMC)

DIAGNOSTIC MODALITIES OF JOINT DERANGEMENTS: A REVIEW ON ARTHROGRAPHY

ROXANA DASC LU

Faculty of Veterinary Medicine Timisoara, Calea Aradului 119, Romania

Summary

Arthrography is seldom used in small animal orthopaedics but is an interesting and simple technique readily available to most veterinarians. Although probably not as accurate as the newer imaging techniques (arthroscopy, MRI, and ultrasound), it provides information on intraarticular structures not seen on survey radiographs.

Key words: Arthrography, joint, dog

**TREATMENT OF FELINE OTOACARIASIS WITH 2 OTIC
PREPARATIONS NOT CONTAINING MITICIDAL ACTIVE INGREDIENTS**

J. DEGI

Faculty of Veterinary Medicine Timi oara

Summary

Two otic products containing active ingredients for mite were compared for the treatment of otoacariasis in 20 cats. It was concluded that treatment of feline otoacariasis can be achieved using products with routine ear cleaning and total body parasiticide treatment.

**FIELD EVALUATION OF THE CLEANSING AND DEODORIZING
EFFICACY OF *OTISEPT* EAR SOLUTION**

DEGI J., CRISTINA T.R.

Faculty of Veterinary Medicine Timi oara

Objectives

Evaluate objectively, under real conditions of use, the efficacy of a new ear care solution in removing cerumen from the ear canal of dogs and neutralizing associated unpleasant aural smells.

Check the perfect tolerance of the cleanser for ears under sustained frequent use.

HISTOPATHOLOGICAL AND HISTOCHEMICAL ASPECTS IN A CASE OF DOG HYPERPARATHYROIDISM

IOANA VALENTINA DIACONU¹, E. O. BUCUR¹, C. R. TIHULCA²

¹Pasteur Institute, Bucharest

²Prima Vet Company, Bucharest

Summary

It was microscopically examined a parathyroid gland, sampled by surgical intervention on a nodular mass (from the thyroid area), with large sizes, from the ventral region of the neck of a male dog, Dalmatian, 11 years old.

The cytological and histological exam pointed out the diffuse hyperplasia and hypertrophy of the chief cells, intralobular connective proliferation and the presence of some Calcium [accumulations](#) (crystals), positive to the von Kossa reaction, with different shapes in the excretory ducts lumen. Histochemical, in the cytoplasm of some chief cells were pointed out small secretory argentaffin and PAS-positive granulations, with phenomenon of their expelling. The noted histopathological changes are considered diffuse hyperplastic parathyroiditis with secondary hyperparathyroidism.

**THE CONSEQUENCES OF CHRONIC LEAD ACETATE INTAKE ON
EXPOSURE AND MORPHOLOGICAL INTEGRITY BIOMARKERS (LEAD
LEVEL AND WEIGHT OF SEXUAL ORGANS) IN FEMALE RATS**

EUGENIA DUMITRESCU, ALEXANDRA TRIF, FL. MUSELIN

Faculty of Veterinary Medicine Timisoara

Summary

The study carried out on 32 adult female white Wistar rats, divided in four groups, three experimental (E₁: 50 ppb Pb; E₂: 100 ppb Pb; E₃: 150 ppb lead acetate in drinking water) and one control (C) (tap water) emphasized: lead level strongly significant increasing in ovaries in comparison with C group and fluctuations, uncorrelated direct proportionally with exposure level; lead concentration increasing in Fallopian tubes and uterus comparatively to C group and in inverse correlation with exposure level; ovaries weight decreasing in E groups in comparison with C group in direct correlation with exposure level; uterus and Fallopian tubes weight decreasing in comparison with C group and in inverse correlation with exposure level.

THE INFLUENCE OF YOUTH PIGS RATIO SUPPLIED WITH BIOTRONIC SE FORTE ACIDIFIANT OVER BIOPRODUCTIVE INDEXES

C. FALC¹, M. RO U²

¹Faculty of Veterinary Medicine Timi oara, Calea Aradului no. 119

²DSVSA Arad

Summary

The organic acid and its salts as supplement stock in the fodder can increase the zootechnical performance of pigs, effects demonstrated on a chain of acid and salts.

In general it's considered that the organic acids from the diet and also their salts decrease the gastric pH and in this way establish an increase of the proteolysis enzyme activity and the gastric retention time (1, 3). The antimicrobial effect of some organic acids implies that the positive effect of them over the digestion process due at least partial indirect antibacterial or antibacteriostatics action. At the same time they influence the gastro-intestinal mucous morphology, stimulate the pancreatic secretion and can serve as a sub layer in intermeddling metabolism (2, 4).

DIAGNOSIS AND TREATMENT OF EPILEPTICAL SEIZURES IN DOGS

CRISTINA FERNOAGA, SILVIA JOITA, M.CORNILA, ADRIANA IONESCU

cristinafernoaga@yahoo.com

Summary

Epileptical seizures have been diagnosed in 18 dogs in the Department of Internal Diseases of the Faculty of Veterinary Medicine. Clinical and paraclinical examinations have been performed in order to establish the differential diagnosis and to institute the correct therapy. Causes of epileptical seizures have been varied, including idiopathic, structural and metabolic causes. Because the doctor didn't witness the moment of the seizures in most of the situations, the history played an important role. To benefit of a certitude diagnosis, it is necessary to rely on CT, MRI, EEG, CSF exam and phenobarbital level. Excepting metabolic seizures and VCA patients, the treatment was based on Phenobarbital (4mg/kg b.i.d.) and Carbamazepim (5mg/kg, once a day) and sometimes, during the seizures intrarectal Diazepam (1mg/kg) was used.

ANATOMOPATHOLOGICAL ASPECTS IN REOVIRUS INFECTIONS OF BROILER CHICKENS

IONICA FODOR*, N., CATANA*, VIRGILIA POPA**

*Faculty of Veterinary Medicine Timisoara

** SN Pasteur Institute SA Bucharest

Summary

Avian reovirus is ubiquitous among poultry populations and thought to be the cause of viral arthritis, enteritis/diarrhoea, and stunting/malabsorption syndrome (1, 3).

Avian reoviruses have also been associated with immunosuppression and atrophy of the bursa of Fabricius with characteristic lymphoid depletion and proliferation of connective tissue (2, 4).

The reovirus, regardless of the clinical form, produce important losses through mortality, the decrease of meat and eggs productions, immunosuppression and prophylaxis expenses (3).

In this paper are presented the results of anatomopathological investigations in a series of broilers in which the malabsorption syndrome was described.

Key words: malabsorption syndrome, reovirus, lymphoid infiltration.

PHYSICAL AND CHEMICAL PARAMETERS OF BOAR SPERM

ILINCA FRUNZ , H. CERNESCU, GABRIELA KORODI

Faculty of Veterinary Medicine Timisoara, Calea Aradului No. 119, Romania

ilinca_f@yahoo.com

Summary

Sperm analysis allows evaluation of fertility potential of a male, the causes of infertility and of seminal material quality.

Sperm evaluation must be done rapidly, in short time after collecting, to allow processing regarding initial quality and fertility maintenance. The careful corroboration of most test results offers the necessary criteria for high fertilization capacity ejaculate selection. Ejaculates are analyzed from more point of views as: color, odor, viscosity, pH, but also concentration, mobility, anomalies, etc., unitary criteria are used for estimation of the obtained results.

Sperm parameters vary from one individual to another, being influenced by many exogenous agents (alimentation, the regime of utilization in reproduction, comfort, stress etc.) or endogenous agents (genetic, neuroendocrin etc.). Sperm quality can be modified due to mentioned factors which influence on spermatogenesis activity of testicles, but also due to prostatic diseases.

Sperm examination, regarding evaluation of male aptitudes must be complex and precise. This consists in a macroscopic and a microscopic examination.

Key words: Boar, semen, parameters

**PROFESSOR CONSTANTIN GAVRILESCU - FOUNDER OF ROMANIAN
SCHOOL OF VETERINARY ANATOMY**

B. GEORGESCU, G. PREDOI, N. CORNILA

Faculty of Veterinary Medicine Bucharest

On March 9th 2008, 67 years have been gone by since the death, at 82 years old, of professor Constantin Gavrilescu, lecturer of comparative anatomy at Superior School of Veterinary Medicine and afterwards at Faculty of Veterinary Medicine Bucharest. Professor Constantin Gavrilescu was born on April 13th 1856 in Buzau. After finishing the elementary school in hometown, he attends the secondary courses in Bucharest at the National College "Sfantul Sava". In 1874, he registers at the Superior School of Veterinary Medicine in Bucharest which he graduates on September 26th 1879, taking all the three exams for the veterinary surgeon diploma (diploma nr. 68/1879) with general grade "too well".

The authentic veterinary anatomical education in Romania begins with professor Gavrilescu, who is considered to be the founder of comparative anatomy in our country.

**BACTERIAL AND VIRAL HAZARD IDENTIFICATION ASSOCIATED TO
ALIMENTARY PRODUCTS**

MAGDALENA GONCIAROV, L. TUDOR, ELENA MITRANESCU

Faculty of Veterinary Medicine Bucharest

Summary

The hazard is defined by NACMF (National Advisory Committee on Microbiological Criteria of Food) as any biological, physical or chemical element, which can be a threat to the consumer's health. By definition to an alimentary product can be associated three hazard groups: biological hazard, chemical hazard and physical hazard.

The essence of HACCP consists in the identification of these hazards before the fabrication of the certain product, followed by the elaboration and application of some prevention measures or by eliminating the identified hazards. For this is necessary a good knowledge of every hazard that can be conveyed through the mediation of alimentary products .

THE IDENTIFICATION OF PARASITICAL RISKS ASSOCIATED WITH ALIMENTARY PRODUCTS

MAGDALENA GONCIAROV, L. TUDOR, ELENA MITRANESCU

Faculty of Veterinary Medicine Bucharest

Summary

By means of definition, an alimentary product can be associated three categories of hazards: biological hazard, chemical hazard, physical hazard.

The biological hazards are classified in next categories: bacterial hazards, viral hazards, parasitological hazards. Parasites are organism which develops in a host organism. The parasites which infest people through alimentary products are categorized: protozoa, nematod (round worms), cestoda (tapeworm), and trematoda.

AUTOIMMUNE DISEASES DIAGNOSTIC IN DOGS AND CATS

CRISTINA HORHOGEA

Faculty of Veterinary Medicine Iasi

Summary

Systemic lupus erythematosus, rheumatoid polyarthritis, rheumatic fever, etc. are multigene autoimmune disorder characterized by a constellation of clinical abnormalities that can affect nearly all of the components of the immune system, their hallmark being the production of autoantibodies that are involved in pathogenic immune complex formation and deposit in the organs of patients. The first autoantibodies described in patients with lupus were those specific for nuclei and DNA, but subsequent work has shown that individuals with this disease produce a diverse group of autoantibodies, predominantly somatically mutated, class-switched IgGs.

In order to diagnose autoimmune diseases in dogs and cats were investigated clinical and serological 30 cases (20 dogs and 10 cats), the evolution of systemic lupus erythematosus being confirmed in 10 cases (7 dogs and 3 cats), rheumatoid polyarthritis in 3 dog cases and rheumatoid fever in 2 dogs.

The clinical diagnostic was confirmed using latex agglutination test, indirect immunofluorescence, ELISA and seroprecipitation.

MESENCHYMAL STEM CELLS TREATMENT OF OSSEOUS DEFECTS IN DOGS

**C. IGNA¹, GABRIELA T N SIE², ROXANA DASC LU¹, MONICA ERE¹,
LARISA SCHUSZLER¹, M. SAB U¹, A. SALA¹, T. NEGREANU³, V.
P UNESCU²**

¹ Faculty of Veterinary Medicine, Timisoara, 119 Calea Aradului, Romania

² Centre of Immunophysiology and Biotechnology University of Medicine and
Pharmacy "V. Babe " Timi oara

³ S.C. Poneti SRL Bucure ti

Summary

In this study we have evaluated by clinic, morphologic and histological exam the biocompatibility and the changes in the morphology bone of the two biocomposite implant types: simple collagenic scaffolds loaded with mesenchymal stem cells and collagen impregnated with hydroxyapatite scaffolds loaded with mesenchymal stem cells , implanted into femoral or tibial bones of the adult dogs.

Biocompatibility of all implants was good. After 90 days of the implants the osseous morphology was integral recuperated.

Key words: bone, dog, implants, mesenchymal stem

SURGERY DECISION: URETHROTOMY VERSUS URETHROSTOMY?

C. IGNA

Faculty of Veterinary Medicine, Timisoara, 119 Calea Aradului, Romania

Summary

Specific urethrotomy and urethrostomy procedures are described, including discussion about selection of the appropriate procedure for the urethral problem, patient stabilization considerations, general postoperative management, and risk of complications.

Key words: dog, cat, urethrotomy, urethrostomy

LABORATORY METHODS FOR CONTROLLING AVIAN INFLUENZA IN VOJVODINA REGION

DIANA LUPULOVI , DUBRAVKA POTKONJAK, M. KAPETANOV, T. PETROVI , S. LAZI

Scientific Veterinary Institute "Novi Sad", Novi Sad, Srbija

Summary

It has been proposed that avian influenza virus causes significant health problems in birds, other animals and humans. In birds the disease can be expressed in subclinical form or is accompanied with mild respiratory problems or lower egg production. It can be also manifested in an acute form with high mortality. Due to unspecific disease symptoms, timely diagnostics of AI virus is of great importance in fighting against this disease.

The objective of this paper is to show application of different laboratory techniques and the results of examining avian influenza virus in Vojvodina. The laboratory diagnostics of AI at the Scientific Veterinary Institute "Novi Sad" includes detecting presence of specific antibodies against influenza A virus in blood sera of poultry and proving the virus in samples of dead birds. The presence of specific antibodies in blood sera is done by ELISA technique. For proving the virus in samples the following methods are applied: immunochromatographic assay, virus isolation through embryonated eggs and proving virus genome using modern molecular technique – reverse-transcription polymerase chain reaction (RT-PCR).

During the year 2006 a total of 18,393 blood sera were examined, out of which 4,200 samples from Zrenjanin municipality, from Subotica 3426, Sombor 1543 and from Novi Sad 9224. During the year 2007 from Zrenjanin municipality 4,395 sera samples were brought, 8,857 from Subotica, 630 from Sombor and 664 from Novi Sad. In the examined samples specific antibodies against AI were not detected, i.e. there was no seroprevalence of AI. In 2006 there were 17 samples of pathological material for AI virus isolation in egg embryos, 59 samples for the detection of virus genome by RT-PCR method and 114 analyses for detecting AI virus applying FasTest. In 2007 there were 18 samples for detecting virus genome by RT-PCR method, 19 isolations in egg embryos and 17 detections of AI virus by FasTest. AI virus was isolated only in one case, and it was in a swan in February 2006 (H5 N1 subtype).

Current situation demands regular control in poultry industry, as well as regular control of bird carcasses. Modern methods that are carried out at the Institute are constantly improved according to the Directives of OIE.

Key words: avian influenza, laboratory methods, poultry

**THE APPLICATION OF THE „3 R” PRINCIPLES IN ANIMAL
EXPERIMENTS AT THE NATIONAL INSTITUTE OF RESEARCH AND
DEVELOPMENT FOR MICROBIOLOGY AND IMMUNOLOGY
„CANTACUZINO” BUCHAREST**

B. MARINESCU, C. COMAN

NIRDMI Cantacuzino, Splaiul Independen ei, 103, sector 5, Bucharest

Summary

The idea for „experimental utilizing” of a various animal species for knowing and explaining phenomenon which particularly regarded human organism seems to belong to the early beginning of the medicine history, and the evolving of animals utilizing such as models for humans was simultaneously with medicine development.

Cantacuzino Institute was legal founded in 1921, by Louis Pasteur’s student, Professor Ion Cantacuzino, which has founded and leaded yet from 1901 The Experimental Medicine Laboratory. From that time until now, Cantacuzino Institute was and still is the most manufacturers and the most animal user.

The number of animals and species utilized in experiments varied along the time, a significant diminish has been registered after 1989, especially after 1998 caused by the 3R’s principle implementation for animal experiments.

Worded in 1959, by two famous experts in Laboratory Animal Science W. Russell and R. Burch, the 3R’s principle (Replacement, Reduction, and Refinement), the principle raised for the first time the ethical problem due to animal experiments.

The 3 R’s principle has gradually begun to be applied in all the institutions which are laboratory animals users, in Cantacuzino Institute been implemented by reducing the number of the utilized animals (such as: reutilizing the animals for experiments, maximizing the information obtained from one animal, transgenic animal using), diminishing animal stress (using anesthesia and analgesia , qualified and briefing personal) and replacement of animal laboratory (by giving up the experiments that are using monkeys, dogs, hamsters and rats, changing some of the *in vivo* tests with *in vitro* tests).

**STUDIES REGARDING THE EXPERIMENTAL INFECTION
AND MOLECULAR DETECTION OF THE
TOXOPLASMA GONDII GENOME**

**D. MILITARU, VIRGILIA POPA, BEATRICE STIRBU TEOFANESCU,
C. BELTEGHI, IRINA NICA, F. PASTRAMA**

NS Pasteur Institute SA

Summary

The *Toxoplasma gondii* RH, experimentally intraperitoneal inoculated in mice, at 96 hours p.i. was present in the liver, spleen, kidney, intestine, ascitic liquid, but not in the brain samples. In order to detect molecularly the presence of the protozoan in biological samples there been set up 5 variants of elective PCR tests, by identifying the genes b1, sag3, gra6 and hsp70, and also one variant of multiplex PCR. Among the extraction methods for the genetic material from the biological samples, the method of extraction with lysis solutions and isopropanol precipitation was demonstrated to be adequate, unlike the extraction with Chelex 100 solution or the thermal lyses method.

FINK FC 21 BIOCIDAL EFFICIENCY TEST IN RAHOVA PENITENTIARY KITCHEN

**ELENA MITRANESCU, F. FURNARIS, L. TUDOR, DANA TAPALOAGA,
ELENA STAICU, MAGDALENA GONCIAROV**

Faculty of Veterinary Medicine Bucharest, 105th Splaiul Independentei, District
5, Bucharest, mitranescuelena@gmail.com

Summary

The biocidal effect of Fink FC 21 product was assessed by carrying out the decontamination action in the Agro-zootechnical household Rahova Penitentiary kitchen.

This product was applied on different surfaces (faience, grit stone, stainless steel) with a concentration of 2% and the contact period was 10 minutes. The product's application was made under pressure with CeDos Shamboy device after the first stages of decontamination action (the mechanical one and the hydromechanical one).

Before and after product's application there were harvested sanitation samples and there were carried out the following tests: Staphylococcus Test (ST), Modified Coliforms Bacilli Test (MCBT), Total Number of Germs (TNG) and Total Number of Fungi (TNF).

The researches led to the following conclusions: the sanitation test carried out after applying Fink FC-21 turned negative; Fink FC-21 product has a very good microbicide activity under a concentration of 2% and 10 minutes contact time; the product was efficient in the food industry for all kind of tested surfaces; Fink FC-21 has a high killing activity in a low concentration within a short period of time; the product's efficiency is conditioned by the correct setting of the two decontamination stages (mechanical and hydromechanical).

Key words: decontamination, sanitation tests, concentration, biocidal

ESTABLISHING THE BACTERIAL CONTROL POINTS IN POULTRY SLAUGHTERHOUSE

ADRIANA MORAR, GH. MILOVAN, CLAUDIA SALA, I. ST NCHESCU

Faculty of Veterinary Medicine Timi oara

Summary

The aim of this study was to identify the critical control points (CCP) in a poultry slaughterhouse. We take into consideration the following sampling points: chickens' feathers, the bleeding knife; scalding water; the rubber fingers from the mechanical plucker; the carcasses surfaces after deplucking; the table for pluck finishing; post-evisceration (external and internal) carcasses surfaces; carcasses surfaces after washing and airing; the carcasses surfaces after chilling; faience; technological water; hand workers. From this, only two had an important contaminating effect: **bird feathers**, which participate in bacterial contamination of finished product with: 5 log. cfu/ cm² *total viable counts*; 2 log. cfu/ cm² *enterococci*; 2 log. cfu/ cm² *sulphite reducing-anaerobes bacteria* and the **table for manual pluck finishing**, which contribute in increasing the bacterial load of processed carcasses as follows: 5 log. cfu/ cm² *total viable counts*; 3 log. cfu /cm² *coliforms bacteria*; 2 log. cfu/ cm² *enterococci*; 2 log. cfu/ cm² *sulphite reducing-anaerobes bacteria*. These two stages must accept as critical control points (CCP), because, on poultry slaughtering line, after them none operation assuring the decrease of bacterial contamination at acceptable level.

Key words: bacterial control points, poultry slaughterhouse

INVESTIGATIONS ON THE ROLE OF HISTAMINE H-3 RECEPTORS IN ISOLATED GUINEA-PIG ILEUM

MARIA MOT, OLIMPIA COLIBAR, MARIOARA NICULA

USAMVB TIMISOARA

Summary

In this study was investigated the in vivo role of histamine H-3 receptors in regulation of peristaltic movements of ileum in guinea-pig. The ileum segments were perfused and the peristaltic movements that activate the endo-mural reflexes were induced.

The application of atropine (10 nmol/l) completely prevented the appearance of peristaltic waves, suggesting the involvement of neuronal cholinergic pathways, which contain nicotinic synapses. Both distension- and electrically evoked contractions of the gut are due to the activation of postganglionic cholinergic or non-cholinergic.

Histamine H-3 receptors had a heterogeneous distribution in myenteric plexus different fibers, their role in regulation of ileum peristaltic waves is low, but don't exclude the act on the extrinsic components of metasimpatic or central nervous system.

Key words: histamine H-3 receptors, guinea-pig, ileum.

STUDY REGARDING CONFORMITY OF ROW MILK

CORINA NEAGOE¹, D.D. BOJIDAR², R. TRIF³, DANIELA CÎRNA U⁴

^{1,4}Arad Sanitary Veterinary and for Food Safety Direction, Food Safety Laboratory, ²“Aurel Vlaicu” University, Arad, ³Veterinary Medicine University, Timisoara – Romania

Summary

It has been taken to study total plate count (TPC) and somatic cell count (SCC) quality parameters from milk as staple destined for human consumption, according to CE R egulation nr. 853/2004, because TPC reflects hygienic status of exploitations and milking conditions, and SCC underline control and monitoring program of animals health status(1,2,3,4).

The obtained results points out an improvement of monitoring paramete rs value, after implementation in Romania of a new hygiene package between years 2005 -2007.

The study render evident, a decreased incidence of a TPC and SCC nonconforming samples during the studied period: in TPC from 25,2% to 7,58 and SCC from 12,2% to 0,95%.

Key words: total cell counts, somatic cell counts, row milk

FOREWORD REGARDING PROTEIN CONFORMING IN ROW MILK IN ARAD COUNTY DAIRY COW EXPLOITATION

CORINA NEAGOE¹, R. TRIF², D.D. BOJIDAR²

¹Arad Sanitary Veterinary and for Food Safety Direction, Food Safety Laboratory, ²Veterinary Medicine University, Timisoara, ³“Aurel Vlaicu” University, Arad– Romania

Summary

Milk protein content is been considered as a major element of conformity regarding row milk quality and in the same time regarding human consumption .

The minimum phisyological limit for the cow milk protein content is 3,2%, established as a reference value by the low.

This study has analised the obtained values on Arad county diary cow exploitations during a three years period, 2005-2007.

The prolusions are about protein nonconforming values, esspecially during winter period due to a protein cow feed deficit.

Key word: row milk, protein, seasonal

HEPATIC AND RENAL HISTOPATHOLOGICAL ASPECTS IN RATS INTOXICATED WITH CADMIUM CHLORIDE TREATED PREVENTIVELY AND CURATIVELY WITH WATER ALOE EXTRACT

**I. OLARIU-JURCA, IULIANA CHI U, LUCIA OLARIU, M. COMAN, A.
STANCU**

Faculty of Veterinary Medicine Timisoara

Summary

This scientific work presents the hepatic and renal morpho-pathological changes in the rats intoxicated experimentally with cadmium chloride and treated preventively and curatively with water aloe extract. The experiment has been performed on 4 groups of rats (8 rats/group), for 4 weeks, in two stages: the first stage lasted for two weeks and it represented the prevention step; the second stage, the post-intoxication treatment, lasted also for two weeks.

The water aloe extract, due to its content in aloine, polyphenols, flavone s and flavonoids, has an antioxidant action.

The oxidative stress installed within the intoxication with CaCl_2 causes histopathological changes in various tissues and organs.

As a result of the comparative microscopic examination between of the organs take n into study, per rat groups, we have observed circulatory changes and hepatic and renal degenerative lesions, of necrobiosis and necrosis, of various intensities and extension. The water aloe extract generates a significant reduction, as intensity and extension of the hepatic and renal circulatory, degenerative and necrosis changes, confirming the presence of the antioxidant and curative properties of the water aloe extract.

The hepatic and renal congestions of the rats treated preventively and curatively with water aloe extract (group III) are less intensive and extended than the ones from the group not treated after intoxication (group IV).

Key words: histopathological aspects, rats, water aloe extract, intoxicated cadmium chloride

**ALLIUM SATIVUM AQUEOUS EXTRACT AND ITS` INFLUENCE ON SOME
MICROELEMENTS LEVELS IN RATS` LIVER AND KIDNEY, AFTER
CADMIUM INTOXICATION**

**LUCIA OLARIU, IULIANA CHI - BUIGA, MIHAELA PUP, MIHAELA
PETCU, CAMELIA TULCAN**

Faculty of Veterinary Medicine, Timisoara,
119 Calea Aradului, 300645, Timisoara, Romania

Summary

The relation of cadmium with different microelements was studied. Cadmium compete with cooper and iron for the SH groups. The aim of this paper is to present the influence of an aqueous *Allium sativum* extract administration on the toxic effects of Cd in rats` liver and kidney. A 20 ppm/ kg b.w Cd single dose administration, affects either cooper, iron and selenium levels in rats` liver and kidney. Allium sativum extract administration diminished the toxic effect of Cd.

Key words: cadmium, cooper, zinc, iron, selenium, allium sativum, liver, kidney, rats

**COMPARATIVE STUDIES IN CADMIUM SCAVENGER DEUTERIUM
DEPLETED WATER PRODUCT, IN FEMALE
AND MALE RATS**

**LUCIA OLARIU, MIHAELA PETCU, CAMELIA TULCAN,
MIHAELA PUP, IULIANA CHIU, ILEANA BRUDIU**

Faculty of Veterinary Medicine Timisoara
119 Calea Aradului, 300645 Timisoara, Romania

Summary

The present work deals with the study of the deuterium depleted water (DDW) effect on male and female rats' antioxidant system, in cadmium (20 ppm Cd/ b.w. in single dose administration) induced oxidative stress. After 61 days of DDW treatment the malondialdehyde (MDA), registered slightly higher values as controls. Malondialdehyde (MDA), protein, alaninamino transferase (ALT) and aspartatamino transferase (AST) were determined by spectrometric methods. Cadmium was determined in male and female rats' liver and kidney by the graphite furnace technique with absorption spectrometry. In short time treatment (30 days), DDW had a prooxidant effect (MDA values are increasing) but after a longer time treatment DDW could partially counteract the damages due to Cd intoxication by stimulating the cell antioxidant defense system; An important Cd scavenger role was observed at DDW treated groups, both in male and female rats . DDW had an important liver protective role.

DEFINING THE ELEMENTS FOR RISK EVALUATION OF AVIAN INFLUENZA

D. ORLI , M. KAPETANOV, DUBRAVKA POTKONJAK, M. MALJKOVI ,
S. ORLI

Veterinary Institute "Novi Sad", Novi Sad, Srbija

Summary

Highly pathogenic avian influenza (HPAI) a contagious poultry disease notifiable to OIE (List A) causes high economical losses and negative effects for the international trade in the region of the outbreak. Besides general approach to disease control through implication of measures, such as providing biosecurity, improving management practice, monitoring and vaccination, the member countries of OIE have imposed several measures and procedures for the control of HPAI through national programs.

Eradication procedures are applied for the diseases on List A OIE, whereat fast spreading and great economical impact of the diseases, such as HPAI, is stressed. Recommendations of OIE, especially the European Union (EU) Regulations for the control of avian influenza, are in tegral part of Council Directive 92/40/EEC.

In February 2006, the Republic of Serbia notified its first case of avian influenza to OIE from one swan carcass found in the upper Danube region in the north of Vojvodina Province. The disease was detected in two more cases, in one swan and one cock in the south of Serbia. Serotype H5N1 virus was isolated from all the cases. In both cases an infected zone 3 km in radius and endangered zone 10 km in radius and specific elements and measures of biosecurity were for med. The Ministry of Agriculture, Department for Veterinary Medicine, along with general measures and recommendations of OIE, adopted several Directives for tracking and control of AI outbreaks in wild birds and domestic poultry. By these Directives, import of poultry and poultry products from the countries with registered AI, game birds hunting, keeping poultry in open and trade of poultry and poultry products from farms that were not under veterinary control were all prohibited. Some other preventive measures were also adopted.

Key words: avian influenza, poultry, control.

**EVALUATION OF THE LUTEOLYTIC EFFECT OF PG VEYX FORTE AND
GONADOTROPIC EFFECT OF GONAVET IN ONE SCHEDULE OF
ESTRUS SYNCHRONIZATION IN DAIRY COWS**

G. OTAVA, C. MIRCU, RENATE KNOP

Faculty of Veterinary Medicine Timisoara, Department of Reproduction Obstetrics and Gynecology
Calea Aradului No.119, code 300645

Summary

Poor reproductive performance of dairy cows observed in the last few decades can be countered by estrus synchronization protocols. The specific objectives of this study were 1) to evaluate the luteolytic effect of a synthetic prostaglandin (PG VEYX FORTE) 2) to estimate the potential of an GnRH analogue (GONAVET) to synchronize ovulation 3) to compare the conception rate in two groups of female: those which show estrus behavior and those which not. A functional CL was considered to be present on the ovary using the ultrasound method. A PGF₂ analogue was injected at all eligible cows (those with CL and over 55 days postpartum) (n=39). 2 ml of PG Veyx Forte (500 µg Cloprostenol) was inoculated IM in order to induce estrus synchronization. In order to synchronize ovulation 1,5 ml of Gonadorelin Veyx (D-Phe6-Gonadorelin 0,05 mg/ml) was inoculated IM 60h following the prostaglandin injection. Artificial insemination has been performed after 72h of prostaglandin and 12 h after GnRH analog at all cows with or without showing estrus. Out of 39 cows 53.8 % show estrus behavior in first 3 days. Out of 39 cows 4 were detected with reproductive disorders and were not inseminated at heat detection. Pregnancy diagnosis was performed at 32 days with help of ultrasound. The conception rate was 52.9% at the cows showing estrus and 22.2 at those which not. Treatment of dairy cows with one injection of prostaglandins (PG VEYX FORTE) resulted in good estrus synchronization. In this schedule of estrus synchronization pregnancy rate is higher on cows that show estrus signs than to those which are not.

HEMATOLOGICAL ASPECTS IN SOME MALIGNANT TUMORS OF CATS

CRENGU A IOANA PAVEL¹, EMILIA BALINT², N. MANOLESCU³,
AGRIPINA APCALIU¹, V. SAVU⁴, I. R DOI²

¹Institute for Beekeeping Research and Development Bucharest, ²Faculty of Veterinary Medicine Bucharest, ³Institute of Oncology „Al. Trestioreanu” Bucharest
⁴University Spiru Haret Bucharest

Summary

There are analysed the cytohematologic quantitative aspects provided by hematologic tests performed on cats with different types of mesenchymal and epithelial malignancies before the chemiotherapeutic medication. The prevalent aspects are: the equal proportion between anemia and normal erythrocyte values, the normal thromocyte number, leukopenia, the equal proportion between lymphopenia and normal lymphocyte values, the absence of primed lymphocytes, the low values or absence of natural killer and dendritic cells as well as neutrophilia and normal eosinophil and basophil values. These manifestations show a higher suppression of cellular immunity system, especially by collapse of NK and dendritic cell number (the principal cell lines of general and anticancerous immunity) in cats with malignancies.

SANGVINE BIOCHEMICAL PARAMETERS EVOLUTION IN THOROUGHBRED SPORT HORSES DURING TRAINING PERIOD

CRISTINA PETRUSE, C. FALC

Faculty of Veterinary Medicine Timisoara
petrusecristina@yahoo.com

Summary

Taking into account the fact that blood, through its constituents, represents the mirror of the animal health (reacting rapidly and many times specifically to the aggressions caused by external and internal factors); we have chosen to carry out some biochemical investigations on Thoroughbred horses, in the last phase of the training period. Paraclinical investigations were made on groups that have different training status (trained and untrained) at three different times (T_0 – before exercise, T_1 – after gallop race, T_2 – two hours after gallop race). The purpose of this study was to establish the differences between the three moments of the training and between the two groups of horses, regarding biochemical parameters. The biochemical parameters investigated were: total protein, albumines, globulines, total lipids, triglycerides, creatinine, uric acid, glycemia, ALP, LDH, ASAT and CPK.

Keywords: horse, effort, biochemical, sangvine, parameters, Thoroughbred

ANALYSIS OF PROTEINS FROM SOYA PRODUCTS AND SUBPRODUCTS

D. PETRU , OLIMPIA COLIBAR, E. CR INICEANU

Faculty of veterinary Medicine, Timisoara, Romania

Summary

The experimental research consisted in the determination of the nutritive value of some soy products that are to be found on the Market: soy texture, breaded soy steak, soy milk, soy cheese, soy frankfurter, soy salami, etc.

Soy bean products and sub products taken from the shops were analyzed in the laboratories of our university.

The values of the protein obtained experimentally are shown in the chart bellow and they are expressed at 100g dry substance.

To compare the values determined experimentally to the ones written on the labels on the packages, the values of the protein at 100g product have been calculated.

Key words: soy, soy beans, soy products

ORGANOCHLORINE PESTICIDES IN THE BLACK SEA DOLPHINS

OANA MELANIA POPA¹, ALEXANDRA TRIF¹, NICOLETA MARIN²,
NICOLETA URSU³

¹ Banat's University of Agricultural and Veterinary Medicine Sciences, Calea Aradului 119, Timisoara, ² DSVSA Constanta, ³ Museum Complex of Natural Sciences, B-dul Mamaia 255, Constanta, orpopa@yahoo.com

Summary

The present study evaluates organochlorine pesticide in dolphin blubber samples and was carried out on four Black Sea dolphins (*Phocaena phocaena relicta* and *Tursiops truncatus ponticus*) found stranded in 2007. The results emphasized: differences related to species regarding organochlorine accumulation: *Phocaena phocaena relicta* accumulated higher concentrations from all organochlorine pesticides than *Tursiops truncatus ponticus*; differences related to sex: males accumulate more PCBt and Endrin while females accumulate opDDT, HCH and HCH. For HCH it was the same mean concentration for males as for females.

Key words: organochlorines, dolphins, Black Sea.

STUDIES REGARDING TO THE EFFECT OF SOME *ENTEROCOCCUS FAECIUM* STRAINS IN AVIAN INFECTIONS WITH *SALMONELLA GALLINARUM*, *LISTERIA MONOCYTOGENES* AND *ESCHERICHIA COLI*

VIRGILIA POPA¹, MARIUS PIRVULESCU¹, M. SAMARINEANU¹, DIANA PELINESCU², TATIANA VASSU- DIMOV², ILEANA STOICA², ELENA SASARMAN², E. CAPLAN¹, DANIELA BOTUS², IRINA NICA², ALEXANDRA ALECU¹

¹SN Institute Pasteur SA,

²University of Bucharest, Faculty of Biology, Department of Genetics

Summary

There have been achieved experimental infections in broilers of 22 days old with one avian pathogenetic *Escherichia coli* strain (APEC pathotype, CRb+), one strain *Salmonella gallinarum* phage type 2a, and one strain *Lysteria monocytogenes*, inoculated after 14 days of treatment with two strains of *Enterococcus faecium*, per os administrated. Although both probiotic candidate strains have stimulated the cellular mediated immune response mechanisms and the local intestinal one, there have been registered differences between them regarding their effects upon infections with the three pathogenetic strains.

**STUDIES REGARDING TO THE PRESENCE OF PORCINE CIRCOVIRUS
TYPE 2 IN SWINE INDUSTRIAL GROWTH FARMS FROM ROMANIA**

**VIRGILIA POPA¹, D.A. STANUICA¹, E. BUCUR¹, D. CADAR⁴, N. CATANA³,
DOINA DANES², S. BARAITAREANU², DANIELA BOTUS¹, IRINA NICA¹,
ADELA STAN¹, C. BELTEGHI¹, F. PASTRAMA¹, T.TAMAS⁵**

¹ N.S..Pasteur Institute S.A.; ² Faculty of Veterinary Medicine, Bucharest;
³ Faculty of veterinary Medicine, Timisoara; ⁴ Faculty of Veterinary Medicine,
Cluj-Napoca; ⁵ Institute of Veterinary Medicine - Budapest

Summary

The present paper was meant to be a serological, biomolecular and histopathological screening about the presence of porcine circovirus of type 2, in three swine farms from Romania, as a component part of some complex investigations regarding the opportunity of conceiving and introducing in the immunoprofilaxis programs from our country of an efficient vaccine against porcine circovirosis.

By immunoenzymatic processing 111 serum samples, harvested from piglets, sows, boars, swine in fattening, it has been established that at each of the three farms that was under study, over 60% of the results were positive towards porcine circovirus of type 2 (PCV2). The presence of PCV2 in the respective farms demonstrated it and the specific amplicons obtained, at the Pasteur Institute from Bucharest, as well as at the Institute of Veterinary Medicine from Budapest, after processing by PCR of some extracts from organs samples harvested from dead bodies and/ or abortions. On histological preparations performed from samples with positive PCR results were observed some aspects characteristic for PCV2 infection (lymphocytes depletion at the level of lymphoid organs, respectively lymphohistiocytic bronchopneumonia), aspects which, correlated with the results of the other investigations, confirmed the evolution of circovirosis in swine herds under study.

Considering the important economical losses that swine circovirosis can produce directly and/ or indirectly, as well as the alarming results obtained by this study, we consider that it is necessary the achievement of this kind of screening at a larger scale and reconsidering the importance of the immune prophylaxis specific for this disease.

Key words: circovirus, swine

**THE WINTER DYSENTERY IN DAIRY COW:
I. EPIZOOTOLOGIC STUDY**

**ELENA POTECEA*, MONICA PÂRVU*, D. TURCU*, ELENA LUIZA B. DIC*,
CORNEL BIBICU**, AURA TR. NCU ****

* University Spiru Haret, Faculty of Veterinary Medicine

** S.A.I.P

Summary

Winter dysentery is an infectious disease with a great catching in winter season. The disease appears frequently in winter dairy and it characterizes through diarrhoea, sometimes hemorrhagic, noteworthy decrease of milk production and disturbance in general status. This study was effected into a cow out of farm, which a lot of primiparous cows got sick immediately after calving. The study was made on 50 cows which calved/aborted in January and February 2008. It was made epizootical, clinical and morphopathological examinations. The data suggest that after calving, in special at the primiparous cow, it was developed the winter dysentery.

Key words: cattle, epizootology, coronavirus, winter dysentery

**ASPECTS REGARDING THE PECULIARITIES OF THE BONES OF PELVIC
LIMB IN OSTRICH (STRUTHIO CAMELLUS)**

**G. PREDOI*, C. BELU*, I. DUMITRESCU*, B. GEORGESCU*,
ANCA EICARU*, PETRONELA ROSU*, CARMEN BI OIU**, A.I.
TOADER***

****A.N.S.V.S.A. Bucuresti**

Summary

In ostrich the ilium is massif and is not united with the symmetrically on the all length (only in preacetabular part). The ischium and pubis are long and narrow. Flat caudal extremity of ischium is far away of ilium extremity. Unlike nandu, caudal extremity of pubis outclasses caudal extremity of the ischium, then is recurved caudo-medially, being in contact with symmetrical .

Femur in ostrich is more massive then nandu and is rectilinear. Tibia is massive, long and rectilinear. The fibula has styloid shape. Tarsometataral bone has a proximal articular surface made by two glenoidal cavity. Distal extremity of tarsometatarsal bone has two trochleas, the most developed being the medial. The acropodium is represente d by two toes.

HISTOLOGICAL RESEARCHES CONCERNING THE DUODEUM IN STRUTHIO CAMELUS

TEFANIA PREDOI, N. CORNILA, IULIANA CAZIMIR,

CRISTINA CONSTANTINESCU

The Faculty of Veterinary Medicine Bucharest

Summary

In the speciality literature, the informations regarding the histostucture of the duodenum in ostrich (*Struthio camelus*) are rare, most of them reffering to *Gallus domesticus* species.

The intestinal villi are long, occupying two thirds of the thickness of the duodenal wall.

At the age of 17 days, the typical goblet cells are numerically reduced, while many cells in which the process of accumulating mucus has started were observed.

The Lieberkühn intestinal glands are short and the Brunner glands are missin g.

Muscularis mucosae is poorly represented.

Key words: ostrich, duodeum, histostucture.

EVALUATION OF MEASUREMENT UNCERTAINTY IN SPECTROMETRIC ANALYSIS

MIHAELA PUP, CAMELIA TULCAN, LUCIA OLAR IU

Faculty of Veterinary Medicine, Timisoara,
119 Calea Aradului, 300645, Timisoara, Romania

Summary

Based on the reference SR EN ISO/CEI 17025/2005, all analysis laboratories must have and apply a procedure for estimation of uncertainty. Evaluating uncertainty and declaring its value in Analysis report is necessary when the uncertainty is probably to negatively affect the conformity with a specification. The uncertainty is the confidence on obtained data outside of laboratory. We present in this review the basis of this concept, and its importance in achieving the confidence of those researchers who are using in their studies data obtained under control. Without specifying measurement uncertainty, evaluated and expressed according with established rules, the result is not credible and completely useless for his beneficiary.

**THE THERAPEUTIC POTENTIALS OF ESSENTIAL OIL CONSTITUENTS
IN TREATING BROILER INFECTION CAUSED BY *SALMONELLA*
*ENTERITIDIS***

R. RATAJAC * , JEZDIMIROVI MILANKA , B. LAKO *** , D. ORLI * ,
STOJANOVI DRAGICA* , I. STOJANOV * , A. POTKONJAK *****

*Scientific Veterinary Institute «Novi Sad», Serbia

**Faculty of Veterinary Medicine Beograd, Serbia

*** Faculty of Agriculture Novi Sad, Serbia

Summary

The aim of this study was to investigate the antimicrobial activity of essential oil constituent – carvacrol against field strain *Salmonella* Enteritidis (SE) in the laboratory (determination of MIC) and *in vivo* studies on broilers. Carvacrol have been identified as effective antibacterial having the minimum of inhibitory concentrations (MIC) of $0.156 \mu\text{l ml}^{-1}$ *in vitro*. *In vivo* carvacrol was administered in doses 60 mg per kg^{-1} of body weight over a period of seven days to broilers, that had previously been experimentally infected with SE. Carvacrol reduced the number of infected birds in 72.22% of the cases.

RESEARCHES REGARDING ORAL INFECTIONS ETIOLOGY AT DOG AND CAT

**CRISTINA RÎMBU, M.CARP-C RARE, ELEONORA GUGUIANU,
C. CARP-C RARE**

Faculty of Veterinary Medicine Iassy

The normal bacterial microflora that exists in the oral cavity of cats and dogs is structured in a large variety of aerobian microorganisms optionally or strictly anaerobs.(3,6)

The structure of the oral cavity biofilm is different from a case to another, from an investigation to another, and from a geographic area to another. The anaerob flora is localized specially in the tonsil crypts, in the dentary plate and the gingival crevases where the potential for oxidoreduction is low. The dentary plate is an accumulation of bacterias that are in a adhesive matrix, made of glicoproteins and extracelular bacterian proteic polimers.(2,6,7)

The normal bacterial flora has an important function in the physiology of the organism but in some conditions it can have negative effects, supporting the beginning of an infectious diseases.(1,3)

The aims of this research are the identification of the bacterian species implicated in the etiology of oral cavity infections and testing the sensibility to different antibacterial substances. (1,3,5,7)

**THE EFFECT OF BIOFIT BOOSTER ARTICLE FROM YOUNG PIGS RATIO
ON BIOPRODUCTIVE INDEXES**

M. ROU¹, C. FALC²,

¹DSVSA Arad

²Faculty of Veterinary Medicine Timi oara, 119 Calea Aradului

It is known the stimulative effect of oligosaccharides on bioproductive indexes (3), especially at poultry and pigs, but there is required many tests regarding the ability to lead on an increase of performance parameters until to those lead on by antibiotics (1, 2).

**MORPHOTOPOGRAPHY OF THE CAELIAC ARTERY IN
*GALLUS DOMESTICUS***

**PETRONELA MIHAELA RO U¹, G. PREDOI¹, C. BELU¹, I.
DUMITRESCU¹, ANCA EICARU¹, G.B. RO U²**

¹Faculty of Veterinary Medicine Bucharest

²DVM - Circumscrip ia Sanitar Veterinar i pentru Siguran a Alimentelor
Crevedia

Summary

Due to the fact that the specialized literature has summary data, some of them contradictory in what concern the vascular of the digestive tube in domestic bird anatomy, I have considered necessary the elaboration of this study regarding the distribution of the caeliac artery.

**RESEARCHES REGARDING THE PARAMETERS OF THE COW MILK
QUALITY WHEN USING AN ANTISEPTIC SOLUTION FOR UDDER
HYGIENE BEFORE MILKING**

**ELENA ROTARU¹, ELENA MITRANESCU¹, DANA TAPALOAGA¹,
CONSTANTA TRANCUTA², I. DINITA³, F. FURNARIS¹**

¹ Faculty of Veterinary Medicine Bucharest

² S.C. Agroindustrială S.A. Pantelimon

³ DSV Calarasi

Summary

The present study had in view the milk quality parameters in a cattle livestock nearby Bucharest, depending on some antiseptic solution for teat cleaning.

There were analyzed the following parameters: temperature, acidity, density, antibiotics, total germs and somatic cells before and also after, using the antiseptic solution. The obtained results demonstrate real differences in milk quality when using this solution before milking. There might be concluded the following: microbial load of milk (TNG) decreased after using DESONET antiseptic solution; the obtained values permit to framing the milk in Premium quality class; the somatic cells, even their values are not over the standards, decreased after using DESONET antiseptic solution; the obtained results present the milk bacteriological quality in this unit and prove the efficiency of DESONET antiseptic solution use in milking biosecurity program.

Key words: teat, antiseptic, milk, cows

**ESTABLISHING THE MICROBIAL CONTAMINATION OF SURFACES
FROM THE FOOD INDUSTRY BY ALTERNATIVE METHODS USING ATP
BIOLUMINESCENCE**

CLAUDIA SALA, GH. MILOVAN, ADRIANA MORAR, ILEANA NICHITA

Faculty of Veterinary Medicine Timisoara

Summary

The two systems using ATP-bioluminescence was used to evaluate the microbiological level, compared with standardized determination, of surfaces and food from samples collected from a dairy plant, a poultry slaughterhouse and a retail unit. The two systems utilized for ATP measurement were HyLyte and Luminometer. The results obtained were compared with those obtained by standardized method. The low correlation with general contamination level of the samples from the milk plant surfaces and the absence of correlation for the others sampling objectives let us to entitle to consider (though those studies are preliminary) that ATP bioluminescence should not be used as a substitute for quantitative methods establishing of microbial load. Still, the ATP monitoring system can be used as screening methods for general levels of cleanliness surface appreciation.

Keywords: ATP bioluminescence, hygiene monitoring, food industry

APIPHYTOTHERAPY WITH VITASOL IN DIARRHEIC SYNDROMES IN CALVES

AGRIPINA APCALIU¹, I. R DOI², D. CONDUR³, CRENGU A IOANA PAVEL¹

¹Institute for Beekeeping Research and Development Bucharest

²Faculty of Veterinary Medicine Bucharest

³University Spiru Haret Bucharest

Summary

Apiphytotherapy, branch of non-conventional therapies, ensures health through detoxifying and vital functions improving, reactivating homeostatic mechanisms, and the organism relationship with the environment. Researches developed within the framework of research contract CEEEX 28/10.2005 had as target elaborating and testing of a antidiarrheic product. Work phases included the propolis and wine - making vegetal parts -based product through a technical which is in a breveting -stage, biochemical and microbiological characterising of the product, "in vitro" testing, using four E. coli standardised types (difuzion method), "in vivo" testing in farm conditions on peri - and neonated calves with diarrhea in the first five days of life, and on 8-10 weeks aged calves with diarrheic sindrome related to alimentar spare - parts feeding (PO dosing 1 ml/10 kg weight BID, water or hay -flower infusion dilution).

After microbiological testings we found out a non -semnificative charging with saprophyte flora stabile for 10 months, and the testing "in vitro" by diffusion method (O 125:H7, 186r, K 987, C 1212) demonstrated inhibition areas for 125:H7 type. "In vitro" tests revealed the high efficiency by 100% improving of diarrheic neonate, perinate and alimentary parts feed calves, after no more than 6 apiphytotherapeutic product doses.

EFFECTS OF A NEW LIGNOCELLULOSE PRODUCT FOR FIBRE SUPPLEMENTATION ON MMA SYMPTOMS, REPRODUCTIVE PERFORMANCE AND FAECAL QUALITY IN A PIG FARM WITH EVIDENT MMA PROBLEMS IN ROMANIA

H. SARANDAN¹, NINA NEUFELD², K. NEUFELD²

¹ Department of Physiology, Faculty of Veterinary Medicine Timisoara

² Animal Nutrition Research Center, Austria

Summary

A feeding trial was performed on 65 sows in a pig farm with evident MMA problems in Romania. The investigation covered one reproductive cycle from insemination till weaning. The aim of the study was to test the influence of a lignocellulose product for fibre supplementation (OptiCell[®], Agromed Austria GmbH) on MMA symptoms, reproductive performance and faecal quality. The test substance with a crude fibre content of 53% and total dietary fibre (TDF) of 85% is a combination of fermentable and non-fermentable dietary fibre.

31 sows of the control group (C group) were fed a standard gestation feed and standard lactation feed whereas the 34 sows in the OptiCell[®] group (OC group) were fed a diet supplemented with 3% of the test substance during gestation period and 0.5% of the test substance during lactation.

Sows of the OC group showed less MMA symptoms. Most notable was the difference in mammitis symptoms (51,6% in C group vs. 20,6% in OC group). OC group revealed more live born piglets per sow (11 vs. 10,2) and more weaned piglets (8,2 vs. 7,7). Average daily weight gain was higher for OC piglets (163,8g vs. 155g). OC group showed good faecal quality (dry matter content shortly above 30%) over the whole test period whereas C group had remarkable variations around time of farrowing. Soft faeces were followed by hard faeces and dry matter content increased from 27% to 42% within three days in C group.

SPECIFIC YOLK ANTIBODIES GROWTH INHIBITION TEST ON A FIMBRIATED K88 *E.COLI* STRAIN

M. S R NDAN, R. TRIF, E. TÎRZIU

Faculty of Veterinary Medicine Timisoara

Summary

An aqueous solution containing IgY antibodies was tested for growth inhibitory effect of an *E. coli* K88 positive strain compared to a control solution, with no specific antibodies. Specific yolk immunoglobulins reduce the "in vitro" growth rate of an *E. coli* K88 positive strain

Key words: IgY, growth inhibition, *E. coli*, K88,

Yolk immunoglobulins have been demonstrated to have an „in vivo” therapeutic effect on piglet colibacillosis caused by fimbriated strains of *E. coli* (2).

“In vitro” growth inhibition tests were previously performed on *E. coli* and *Salmonella* strains (1, 5).The present experiment is meant to test yolk immunoglobulins „in vitro” activity against a fimbriated *E. coli* strain.

TESTING OF AN IGY BASED PRODUCT IN THE THERAPY OF PIGLET COLIBACILLOSIS IN THE FIRST WEEK OF LIFE

M. S R NDAN, H. S R NDAN

Faculty of Veterinary Medicine Timisoara

Summary

A specific anti *E. coli* K88 IgY product was tested on 10 piglets with clinical signs of diarrhea and 8 of them were positive for *E. coli* K88. After treatment 5 of them were clinically healthy and none died. A control lot of 8 piglets was formed, 6 of them were positive for *E. coli* K88. No treatment was applied. 4 piglets died and none of them was cured until the end of the experiment. Administering an IgY based product in 5 days old piglets found positive for colibacillosis has decreased mortality by 66% and cured diarrhea in 62.5 cases after a maximum of 4 treatments.

Keywords: IgY, colibacillosis, suckling piglets.

TRAUMA SCORE IN OUR PRACTICE - RETROSPECTIVE STUDY

LARISA SCHUSZLER, C. IGNA

Faculty of Veterinary Medicine Timi oara, Calea Aradului 119, Romania

Summary

For a better management of critically ill patients we use a modified trauma score applied from 2007 with ranges between 6 to 27 points. It allows dividing a case in critical or non -critical and improving the reaction time and the use of emergency resources. It has inherent limitations in pediatric aged dog group and must be improved in the future.

Key words: trauma, triage, dog.

**PRETRANSPLANTATION EVALUATION OF THE LYMPHOCYTE T
POPULATION AND CLINICAL OBSERVATION IN SKIN XENOGRAFTS IN
IMMUNOTOLERIZED POULTRY**

**MONICA ERE¹, D. CIOCA², SIMONA ANGHEL², A. SALA¹, H.
S R NDAN¹, LARISA SCHUSZLER¹, ROXANA DASCALU¹, M. SAB U¹,
C. IGNA¹**

¹ Faculty of Veterinary Medicine, Timisoara, Calea Aradului 119, Romania

² Immunophysiology and Biotechnology Center, University of Medicine and
Pharmacy "Victor Babe " Timisoara

Summary

The purpose of this study is the pretransplantation evaluation of the lymphocyte T population and macroscopic evaluation of the evolution of the full -thickness xenogenic skin grafts on COBB 500 poultry, to which, on day eight of the embryonic development, has been inoculated a concentrate of mature mononuclear cells from the donor bird of skin grafts (*Cairina moscata*), with the aim of offering immunotolerance. The lymphocyte T subsets were determined by flow cytometry and immunomagnetic sorting and after transplant the subjects have been monitored daily during looking at the macroscopic characteristics of the transplanted tissue (full -thickness skin grafts), among the most important being: color, aspect and adherence to the bed of the skin graft, as well as the aspect of the sides of the wound.

Key words: skin xenografts, immunotolerance

**RESEARCHES CONCERNING IMMUNOPROPHYLACTIC EFFECT OF
VACCINE NEUMOSUIN**

V. HERMAN*, CORINA PASCU*, LUMINI A COSTINAR**

* ¹ Faculty of Veterinary Medicine, Timisoara, Calea Aradului 119, Romania

** SC Smithfield Ferme SRL Timisoara

Summary

In this paper are presented the results of our researches concerning immunoprophylactic effect of vaccine Neumosuin made by Laboratorios Hipra Spain.

Pigs vaccinated with Neumosuin presented lower serum antibodies titer (from 0.303 OD at 0.232 OD) after the first vaccination (age 45 days), and higher 0.935 OD, after 6 weeks after the second vaccination.

There are not observed secondary reaction after the vaccine inoculation.

For the specific prophylaxis of the pig pleuropneumonia, several inactive and adjuvant vaccines are used, which are administered to swine youth i.m. (1, 2, 3).

The main goal of the paper was to test the immunoprophylactic effect of the product Neumosuin (4).

HOOP STRUCTURES FOR FINISHING PIGS

I. H. U¹³, G. W. ONAN¹⁴

Summary

Raising pigs in hoop structures can be an economically viable, environmentally sustainable and socially acceptable alternative farming method for small producers in Western Romania. The objective of this paper is to introduce two hoop designs for finishing pigs and present two years of performance results in these systems. Each hoop structure can be populated with 180 -200 pigs. The illustrated hoops have dimensions of 9.2x27.5 m. and are covered with ultraviolet -resistant polyethylene tarpaulins supported by steel tubular arches. The floor areas are divided into a feeding zone and a resting zone, the last with deep bedding. The lighting is provided through the transparent curtain and the inside temperature is moderated through fermentation of the deep bedded manure pack. Natural ventilation is facilitated by design features that control longitudinal and transverse air flow. The construction details and management techniques were described in Farm magazine and the draft design was on -line at the <http://forum.agroinfo.ro> site beginning February 8, 2005 through March 31, 2008. The site tallied 86 inquiries and 102,455 views - one inquiry for each 1191.33 viewings. Based on the experience of other countries and the interest generated by the web -site, we feel that Romanian agriculture is ready to adopt hoop structures as an economical means for initiating niche marketing opportunities and therefore strengthening its agricultural sector.

Key words: alternative, raising, hoops, and pigs.

¹³ Hutu Ioan, PhD, Extension Unit - Banat University of Agricultural Science and Veterinary Medicine, Disc. Husbandry and Animal Productions, 119 Aradului St. Timisoara -300645, RO, i.hutu@unitate-extensie.rog.ro

¹⁴ Gary W. Onan, PhD, University of Wisconsin -River Falls, Dept. of Animal & Food Science, 410 S. 3rd St., River Falls, WI - USA , gary.onan@uwrf.edu.

**EVALUATION OF THE IMMUNE POSTVACCINAL RESPONSE AFTER
THE ADMINISTRATION OF THE AUTOVACCINE ANTI *ACTINOBACILLUS
PLEUROPNEUMONIAE***

CORINA PASCU*, V. HERMAN*, LUMINI A COSTINAR**

* Faculty of Veterinary Medicine Timi oara

** SC Smithfield Ferme SRL Timi oara

Summary

In this paper are presented the results of our researches concerning immunoprophylactic effect of the autovaccine anti *A.pleuropneumoniae*, The autovaccine produce an increase of the mean of antibodies titers after the first vaccination. After the second administration of the vaccine, the antibody anti *A.pleuropneumoniae* titer has decreased at the previous level, but after 11 days after the second vaccination, the antibody titers have accentuate increase, this tendency maintaining itself until the end of the period of observation (61 days from V1).

**ELECTROCARDIOGRAPHIC ASPECTS IN CANINE SUBENDOCARDIAL
ISCHEMIA AND VENTRICULAR TACHYCARDIA**

**F. SIMIZ^{*}, T. MO , V. CIULAN^{*}, D. MORAR^{*}, CRISTINA PETRUSE^{*},
M. CRISTESCU^{*}, C. NI^{**}**

^{*}Faculty of Veterinary Medicine, Timi oara

^{**}Medoriana Vet ltd.Timi oara

Summary

The electrocardiogram is a noninvasive method and it is very useful in identifying some heart diseases.

The experiment has been conducted on two dogs

The first case a 10 year old male Mioritic Shepherd dog weighing 45 kg had cardiorespiratory antecedents. During the ECG examination and biochemical blood tests the following clinical diagnosis has been established: subendocardial ischemia.

Key words: dogs, electrocardiogram, tachycardia

HISTOLOGICAL LESIONS OF THE LIVER IN CHICKEN S OCHRATOXICOSIS¹⁵

CARMEN SOLCAN, I. COMAN, GH. SOLCAN

Faculty of Veterinary Medicine Iasi
carmensolcan@yahoo.com

Summary

The aim of the study was to evidentiate the histological lesions of the liver in experimental ochratoxicosis of broiler chickens. Investigations were made on 60 broiler chickens divided in 4 groups: E1, E2, E3 and control. The ochratoxin A was given orally, in vegetal oil suspension, ea ch day (from D1 to D21 of life) in the following doses: 1ppm for E1, 5ppm for E2 and 20ppm for E3. Groups of 5 chickens from both experimental and control group were euthanasied at 7, 14 and 21 day of life, to study histological lesions. In E1 group after 7 and 14 days of poisoning with ochratoxine the hepatosteatorosis and slight glycogenosis was observed. After 21 days of poisoning, the glycogenosis and other degenerative changes of the hepatic cells were more evident. In E2 group, degenerative lesions induced by glycogen storage into hepatic cells were observed both at 7th, 14th and at 21th day. Hepatic cells were surcharged with glycogen. In E3 group the liver distrophy was more marked than in E1 and E2 group. Some regions with hepatic cells without nucleus or completely degenerated alternating with nucleolated cells surcharged with glycogen were observed. Proliferation of biliary ducts epithelium was also observed in E3 group, after 21st day of experimental ochratoxicosis. This can suggest a hepatocarcinogen effect of ochratoxin.

¹⁵ Researches financed by the grant CEEX Neoprev 147/2006

THE MORPHO-FUNCTIONAL PECULIARITIES OF THE FORELIMB JOINTS AT BROWN BEAR

C. SP TARU, MIHAELA SP TARU

Faculty of Veterinary Medicine Iasi

Summary

The bear brown is an adapted mammal for plantigrad locomotion and it has the possibility to crossing by to the quadruped to the biped support. The living conditions were determined the transformation on the specific jointing-bone structures. Through dissection and comparative observation, we can find that at the shoulder joint, the glenoidal cavity is more reduced in comparison with the humeral head and the capsule ligament is consolidated by the strong glenohumeralis ligaments. As the carnivorous and the primates, the elbow joint at brown bear presents a strong ring-shape ligament that is dorsally consolidated by the oblique ligament. These ligamentary structures allowed the passing between pronation and supination. At the wrist jointing complex at bear, particular is the antegrachio - carpal articulation that has, like the primates, the distal articular surface of the radius transformed in the articular cavity for articulation with the head of the scapularis bone. From the common capsule is dorsally individualized the radiopiramidalis ligament and palmarly the radioscapularis and ulnoscapularis ligaments.

Key words: bear, anatomy, joint, ligament

**THE IMPACT EVALUATION OF THE OXIDATIV STRESS INDUCED
THROUGH LIGHT DEPRIVATION ON THE ADRENAL G LANDS AT MICE**

MIHAELA SPATARU*, CARMEN ZAMFIR*, ELENA COJOCARU***,
LELIOARA TOCAN***, ADRIANA GRIGORAS***, C. SPATARU****

*Biology of lab animals Discipline, Veterinary Medicine Faculty from Iași

**Anatomy Discipline, Veterinary Medicine Faculty from Iași

***Discipline of Histology, "Gr.T.Popa" Medicine and Pharmacy University
from Iași

Summary

The adrenal glands are known to be a real "barometer", very sensitive, they are not used used for perception because at the same time they promptly reacts to the different forms of stress with which the entirely organism is confronted. The massive catecholamin discharges from adrenal glands have the direct intervention on the nervous system, on the central and peripheral blood circulation, on the heart and on the principal metabolic links, assuring the organism adaptation to the stress conditions.

This experimental study wants to demonstrate and evaluate the reactivity of adrenal glands in the conditions created by induced oxidative stress during some variable periods of time, at the same time underlying the implication degree to two big components of adrenal glands: cortico - and meduloadrenal glands.

Key words: mouse, glands, light, cell

**RESEARCH ON MONITORING MICROCLIMATE PHYSICAL AND
CHEMICAL FACTORS AND THEIR INFLUENCE ON THE WELFARE
OF INTENSIVE SWINE REARING SYSTEM**

**ELENA STAICU¹, ELENA MITRANESCU¹, ADRIANA ORASEANU²,
L. TUDOR¹, F. FURNARIS¹**

1 Faculty of Veterinary Medicine, 105th Splaiul Independentei Street,
District 5, Bucharest

2 Institute for Diagnosis and Animal Health, 63rd Dr. Staicovici Street,
District 5, Bucharest

Summary

The researches were made in six shelters from a fattening pig farm in south of Romania, two shelters, C₁ and C₃, with pigs of 10-14 weeks old and four shelters, I₁, I₆, M₁ and M₃, with pigs of 14-21 weeks old. The measurements followed in two phases: the first one when the natural ventilation was still on and the second one after the computer assisted ventilation system was on. The factors taken into consideration here are physical factors and the chemical factors, which were correlated to the productive performance of the pigs.

The use of the computer assisted ventilation system proved to have positive results, both in the improvement of shelter environment quality and also in the welfare state of pigs.

An improvement of the productive performance was noticed in the assisted computer ventilation system, compared to the natural one, in both categories with 110g/day in the 10-14 days old pigs and with 130g/day old pigs.

**COMPARATIVE STUDY OF A NEW SYNTHESIS PRODUCT (BY -
PRODUCT OF SALICYLIC ACID) AND BASIS STRUCTURAL
COMPOUNDS OVER SOME ENERGETIC METABOLISM PARAMETERS
ON RATS, IN PERSPECTIVE OF THERAPEUTICALLY USE**

LETI IA STANA*, ALEXANDRA TRIF*, ALFA XENIA LUPEA, MIRABELA P DURE**,
LOREDANA GABRIELA STANA***, F. MUSELIN***

*Faculty of Veterinary Medicine Timi oara

** Industrial Chemistry and Environmental Engineering Faculty, Timi oara

*** University of Medicine and Pharmacy, Timi oara

Summary

The aim of the present study was to distinguish the impact of 5 -cloro-2-hidroxyil-azotyl-sulfamoil-phenyl benzamyde synthesis product (5CISA -SA) over some energetic metabolism parameters in comparison with basis structural compounds of this substance.

The synthesis product 5CISA -SA is amide of 5 chlorosalicylic acid with sulfanilamide and was synthesized at Industrial Chemistry and Environmental Engineering Faculty of Industrial Chemistry of Timisoara, being the subject of a PhD thesis (4,5,7).

The experiment was carried out in vivo on white Wistar rats which was administrated 5CISA -SA, Salicylamide(SA) and Sulfanilamide (SU) for 7 days consecutively. The rats were split in 2 test lots and 3 experimental lots. (E₁:0.44 mg 5CISA -SA/kg m.c.; E₂: 0.185 mg salicylamide/kg m.c.; E₃: 0,23 mg sulfanilamide/kg m.c.).

The administration for 7 consecutive days of 5 CISA -SA, SA and SU products determinate increase of glicemy and cholesterol content compared to the tests but in physi ological limits, and significant high increase of triglycerides (P<0,01) compared to tests, and to physiological limits (10) on all the experimental lots. The highest hyperglycemic effect has had 5CISA -SA and the highest values of triglycerides were induced by SA administration.

Key words: glicemy, cholesterol, triglycerides, rats

**RESEARCHES REGARDING THE CONSEQUENCES OF A NEW
SYNTHESIS COMPOUND (BY-PRODUCT OF SALICYLIC ACID) ON SOME
PARAMETERS OF PROTEIC METABOLISM ON RATS**

LETI IA STANA*, ALEXANDRA TRIF*, ALFA XENIA LUPEA, MIRABELA
P DURE**, F. MUSELIN***

*Faculty of Veterinary Medicine, Timisoara, Romania

**Industrial Chemistry and Environmental Engineering Faculty, Timisoara,
Romania

Summary

The aim of the study was to determinate the consequences of a new synthesis product (with potential therapeutically effect) 5-cloro-2hidroxy-azotil-sulfamoil-fenil benzamide (5CISA-SA) on some parameters of proteic metabolism.

Many by-products of salicylic acid proved to be active presenting antipyretic, analgesic and anti-inflammatory properties while others proved to be toxic. After Insel (1991) quoted by De Fadeyl and Obafemi (3) the change of toxic potential is owed to substitution of carboxyl and hydroxyl group.

The synthesis product 5CISA-SA is amide of 5 chlorosalicylic acid with sulfanilamide and was synthesized at Industrial Chemistry and Environmental Engineering Faculty, Timisoara (4,5,9). The results of our researches shown that administration for 7 days consecutive of synthesis products is inducing, in vivo, a significantly high decrease of albumin content and urea ($P < 0,01$), insignificant changes of creatinine value and a significantly high increase of proteinemy.

Key words: protein, albumin, urea, creatinine, rats

INVESTIGATIONS ON AIRBORNE FUNGI IN POULTRY HOUSES

ILEANA NICHITA

Faculty of Veterinary Medicine, Timisoara, Romania

Summary

Investigations on airborne fungi in a poultry house, have been carried out. High concentrations of fungal spores were detected and in the investigated facility. Species of *Aspergillus fumigatus*, *Aspergillus flavus*, *Penicillium crysogenum*, *Cladosporium cladosporioides*, *Scopulariopsis*, prevailed in the poultry farm. According to published data, the majority of the identified fungal species are characterized as allergenic and an exposure to their spores may provoke adverse health effects (such as allergic rhinitis, bronchial asthma or extrinsic allergic alveolitis) in susceptible individuals.

Key words: airborne fungi in poultry houses

**A THIOLATED IMMUNOGLOBULIN COUPLED WITH PEROXIDASE USED IN THE
ANTIBODIES
ANTI-*TRICHINELLA SPIRALIS* DETECTION**

**BEATRICE STIRBU-TEOFANESCU, D. MILITARU, ANA
CISMILEANU,
IOANA DIACONU**

Pasteur Institute, Bucharest

Summary

There has been developed a conjugation method of a goat thiolated immunoglobulin (by the introduction of a thiolic group into the molecule), with the horseradish peroxidase (HRP), by using a maleimidic compound. The enzyme was treated with succinimidyl 4-(N-maleimidomethyl) cyclohexane 1-carboxylate (SMCC) as to obtain a enzyme-maleimide activated compound which reacted with the intruded thiolic group in the intact immunoglobulinic molecule by combining it with N-succinimidyl 3-[2-pyridylthio]-propionamide (SPDP): (IgG - SH). The conjugate obtained were purified, the components that had not reacted were removed using gel-filtration on the Ultrogel AcA 44.

The biologic activities of the two components of the conjugate (the enzyme and the antibodies) were well kept after the conjugation process and were basis of using the conjugate prepared by immunoenzymatic tests proving a higher sensitivity comparing to a conjugate obtained by Periodate method. Conjugate testing was performed by ELISA technique, the direct variant (comparing to swine IgG) and indirect variant (for detection of the *Trichinella spiralis* of swine sera antibodies' level).

Key words: thiolated immunoglobulin, peroxidase, conjugates, antibodies, *Trichinella spiralis*

**CLINICAL ASPECTS FROM AN OUTBREAK OF PORCINE
REPRODUCTIVE AND RESPIRATORY SYNDROME (PRRS)**

**IRINA-OANA T NASE, C. PAVLI, ELENA VELESCU, T. PERIANU,
SIMONA MIHALACHI**

USAMV Ia i, Faculty of Veterinary Medicine

Summary

In swine breeding, there is a constant interest in order to obtain a higher quality and a lower cost for pork meat products by using a rational and modern technology.

Porcine reproductive and respiratory syndrome has been recently diagnosed and has major economic implications.

PRRS affects all swine categories with a large variety of clinical signs: reproductive problems (infertility, late abortion, dead or not viable new-born piglets) and respiratory problems (interstitial pneumonia at all ages) with a variable mortality in piglets and adult swine. It was noticed a persistence of the virus in the herd, but also the presence of post-infection antibodies.

The research has been done in a swine herd where all ages swine were affected (boars, adult swine, pregnant sows, lactating sows and piglets).

Key words: PRRS, sows, interstitial pneumonia

THE EFFECT OF A PROBIOTIC ON UMORAL AND CELLULAR IMMUNITY IN BROILERS

E. TÎRZIU, R. TRIF, ILEANA NICHITA, C. CUMPUȘAN, N. BOIU, R. V. GROS

Faculty of Veterinary Medicine Timisoara

Summary

The researches were accomplished on four broiler batches, from which two batches were fed with forage supplemented with 250 ppm Poultryzyme TM²⁵⁰ probiotic. Other two batches (from which one was fed with standard forage and probiotic) were vaccinated against avian infectious bursitis in the 12th day of life. From each chicken two blood samples were collected, one on 1% EDTA anticoagulant, the other one without anticoagulant. The immuno-modulator effect of the probiotic was estimated based on hematological modifications and specific antibodies concentration.

From blood samples collected on anticoagulant were made slides, May – Grünwald – Giemsa stained, in order to establish the leukocyte formula. Determinations regarding specific antibodies concentrations were done by ELISA. The laboratory tests results shown that Poultryzyme TM²⁵⁰ added in forage positively influences all studied parameters, thus confirming the immunomodulator effect of Poultryzyme TM²⁵⁰ probiotic on both umoral and cellular immune response.

Key words: broiler, immunomodulation, probiotics

RESEARCHES REGARDING THE HENS' WELFARE ASSESSMENT IN A FARM FROM ILFOV COUNTY

C. TOGAN¹, F. FURNARIS², ELENA MITRANESCU², S. BUSTANI², ELENA STAIKU², ADRIANA ORASEANU³, SILVIA ANTONIU³

¹Romanian National Sanitary-Veterinary and Food Safety Authority, 1B Negustori Str., District 2, Bucharest, cristitog@yahoo.com

²Faculty of Veterinary Medicine Bucharest, 105th Splaiul Independentei, District 5

³Institute of Diagnosis and Animal Health, 63rd Dr. Staicovici, District 5, Bucharest

Summary

The researches in the present paper were run in May 2007 in a farm from Ilfov County, with deep-litter intensive system. It was assessed the welfare at group level in one shelter housing Ross 308 hybrid parents.

Since Romania hasn't an official integrative numerical system for establishing the welfare of laying hens, an Austrian system was used - Animal Needs Index 35. The method implies scoring both engineering-based parameters (shelter architecture and equipments) and animal-based parameters (feathers condition, skin condition, number of cocks in the flock etc.) ranged in five areas of influence: locomotion, social interaction, flooring, light and air, stockmanship. For deciding a specific parameter score, measurements, anamnesis or direct observation of the flocks have to be done and sometimes in-depths analysis with state of the art devices (BK 2250 sonometer - noises level, Drager Miniwarn gas-meter - air quality and LM-8000 multifunction devices - draughts velocity, airflow and light intensity). For feathers condition and skin condition parameters, assessment methods were those suggested by R. Tauson in 2004. The final ANI 35 score are obtained by summing scores for all parameters.

The hen flock's welfare final score in the studied house was 19,5 points. This value shows an average welfare, precisely at the superior border of the interval marking average welfare (final score between 16 and 21 points).

Key words: welfare, Animal Needs Index 35L, hens, assessment

INVESTIGATIONS CONCERNING THE ISOLATION OF *FUSOBACTERIUM NECROPHORUM* STEMS FROM PODAL AFFECTIONS OF CATTLE

I. OGOE*, L. TUDOR*, D. OGOE*, LAURA TUDOR, ANCA GALI ***

* Faculty of Veterinary Medicine Bucharest

** Faculty of Veterinary Medicine "Spiru -Haret", Bucharest

Summary

There have been performed comparative investigation concerning the behavior of 18 stems of *Fusobacterium necrophorum* (9 belonging to ssp. *necrophorum* and the other 9 to ss p. *funduliforme*), isolated from hepatic abscesses, pododermatitis lesions and ruminal contents from cattle, to the next biological tests: the agglutination of fowl erythrocytes, production of hemolysins and phospholypase, leucotoxic activity (expressed through hemolytic and phospholypasic titre) and pathogenity for the white mouse.

No matter their origin the *Fusobacterium necrophorum* ssp. *necrophorum* stems produced constantly positive reaction towards all the biological tests analyzed, meanwhile the stems of ssp. *funduliforme* produced negative reactions or rare positive reactions, towards the same tests. It must be mentioned that the stems of *Fusobacterium necrophorum* ssp. *necrophorum*, isolated from the ruminal content, although they have proven to be virulent to the white mouse, they have produced low quantities of leucotoxin.

**THE EVALUATION OF IMMUNOGENIC CAPACITY
OF AN INACTIVATED ANTI-*FUSOBACTERIUM NECROPHORUM*
VACCINE**

I. OGOE *, L. TUDOR *, GABRIELA CR CIUN **

* The Faculty of Veterinary Medicine Bucharest

** INFLPR Bucharest

Summary

The research performed is part of a complex project which is carried out for many years now. The results concerning the comparative verification of the immunogenic capacity of 2 types of inactivated vaccines obtained by classical methods, using a standardized methodology and after their administration on 2 plots of cows, there have been statistically analyzed in 2 consecutive stages: the verification of their innocuity, before the administration on animals from the same species with the species on which the vaccine can be administrated; the verification of the immunogenicity of the 2 types of biological products after administrating them to 2 plots of cows by marking out the specific titer of antibodies.

At the animals from A plot, after the first vaccine administration, the specific antibody titer marked out values between 1/64 and 1/256, while in case of the ones to which vaccine B was administrated, the values of the specific antibodies titers were between 1/128 and 1/512. After relapse, there was recorded a significant increase of specific antibodies titers, in animals from plot A, but also at the ones from plot B, but in the majority of the sera collected from cattle in plot B, the antibody titer was higher than 1/512 (between 1/1024 and 1/2408).

**COMPARATIVE STUDY CONCERNING THE IMPACT OF A NEW
SYNTHETIZED PRODUCT (SALYCILIC ACID DERIVATE) AND ITS
STRUCTURAL COMPONENTS ON SOME HEMATOLOGICAL
PARAMETERS IN RATS, IN THE PERSPECTIVE OF UTILIZATION IN THE
THERAPY**

**ALEXANDRA TRIF*, LETI IA STANA*, F. MUSELIN*, XENIA ALFA
LUPEA**, MIRABELA P DURE**, LOREDANA GABRIELA STANA*****

* Faculty of Veterinary Medicine Timisoara

** Faculty of Industrial Chemistry and Environmental Engineering Timisoara

***University of Medicine and Pharmacy Timisoara

Summary

The comparative study concerning the impact of the product 5-cloro-2-hydroxy-nitogenyl-sulphamoil-phenyl-benzamide (5CISA-SA) and its structural component, salicylamide (SA) and sulphanylamide (SU) on some hematological parameters emphasized: erythrocytes counts, hematocrite and hemoglobin variation in the frame of physiological limits but higher values than in control group and than in SA and SU groups; higher leukocyte counts comparative to control group, in physiological limits, more pronounced than in SA group and lower than in SU group; lower lymphocytes percentage comparative to control group but in physiological limits, higher comparative to SA group, no significant differences comparative to SU group; higher granulocytes percentage than in control group, in physiological frame, lower than in SA group and not significant difference comparative to SU group; lower monocytes percentage than in control, SA and SU groups but in physiological limits.

**THE CONSEQUENCES OF CHRONIC ALUMINUM SULPHATE INTAKE ON
EXPOSURE AND MORPHOLOGICAL INTEGRITY BIOMARKE RS
(ALUMINUM LEVEL AND WEIGHT OF SEXUAL ORGANS) IN FEMALE
RATS**

ALEXANDRA TRIF, EUGENIA DUMITRESCU, F. MUSELIN

Faculty of Veterinary Medicine Timisoara

Summary

The study carried out on 32 adult female white Wistar rats, divided in four groups, three experimental (E₁: 200 ppb Al; E₂: 400 ppb Al; E₃: 1000 ppb Al as aluminum sulphate in drinking water) and one control (C) (tap water containing around 50 ppb Al) emphasized: significant increase of aluminum level in ovary comparative to control group and indirectly correlated to aluminum exposure level ;increase of aluminum level in uterus with Fallopian tubes comparative to control group and in direct correlation to aluminum level exposure; variation around control group mean values of ovaries weight and in direct correlation but not strictly proportional to aluminum exposure level; variation around control group mean values of Fallopian tubes and uterus weight and in indirect correlation, but not strictly proportional to aluminum exposure level.

**THE ISOLATION PREVALENCE OF BACTERIA BELONGING
TO *YERSINIA* GENUS ISOLATED FROM CARCASSES
AND ORGANS OF WILD BOAR**

**L. TUDOR *, I. OGOE *, LAURA TUDOR **, ANCA GALI *, ELENA
ROTARU***

*The Faculty of Veterinary Medicine of Bucharest

**The Faculty of Veterinary Medicine "Spiru -Haret" of Bucharest

Summary

This study follows the isolation frequency of Yersinia germs from different organs and carcasses samples collected from wild boars. The study presents a high importance because it reveals the probability of contamination with bacterial species of Yersinia genus, which are pathogen for human beings (especially for infants) through alimentary toxic infections, manifested by austere diarrhea syndrome.

To determine the isolation prevalence of Yersinia bacteria, a total number of 4905 organs and muscle sample were harvested and processed through microbiological assays; the study was developed during a period of 5 years (2003-2007).

The statistical analysis of the data obtained showed a total prevalence of 2.26 with an yearly fluctuation of frequency isolation situated between short limits (from 1.02 % to 0.1 %).

THE OPTIMIZATION OF *YERSINIA ENTEROCOLITICA* ISOLATION AND IDENTIFICATION FROM FOOD PRODUCTS

**L. TUDOR*, I. OGOE*, C. CEAU I*, ELENA MITR NESCU*,
MAGDALENA GONCEAROV*, ELENA ROTARU***

* The Faculty of Veterinary Medicine of Bucharest

Summary

The research was performed to optimize the methodology diagnosis of *Yersinia enterocolitica* from different categories of samples. Following this objective, in the first stage the general technique of collecting and processing the samples was adapted and optimized, raising the diagnosis rapidity. In a second stage of research there have been artificially contaminated different types of samples with *Yersinia enterocolitica* stems, checking the efficiency and accuracy of optimized method.

The last stage of research was directed to constituting a methodological scheme to assure rapidity and identification diagnosis for *Yersinia enterocolitica* species.

**DIAGNOSIS ELEMENTS IN CANINE BRUCELLOSIS
PRODUCED BY *BRUCELLA CANIS***

LAURA ANETA TUDOR*, I. OGOE **, L. TUDOR **

*The Faculty of Veterinary Medicine "Spiru -Haret", Bucharest

**The Faculty of Veterinary Medicine Bucharest

Summary

The research was made taking into account 257 clinical cases manifested by orchitis or orchitis - epididymitis and 28 cases of spontaneous abortions. The animals comprised in this survey belong to many races: German Shepherd, Samoyed, Dalmatians, Rottweiler, Mioritic Shepherd, Carpathian Shepherd, Great Dane, Irish Terrier, Pointer, German Braque, Siberian Husky, and a very important number of cases was represented by community dogs.

The clinical elements for presumptive diagnosis were dominated by orchitis and orchitis - epididymitis associated with urinary difficulties, hyperthermia and, at females, the suspicion was made on the basis of the spontaneous abortions. The confirmation diagnosis comprised a complex of bacteriological methods (the isolation of Brucella in the blood, from the abortion products, or from the testicle taken in from emasculate animals); in most of the cases are being used also serological methods (Slow Agglutination Reaction, Fast Serum Agglutination Reaction, Complement Clumping Reaction and Speed Brucella Canis Test).

THE OPTIMIZATION OF THERAPEUTICAL BEHAVIOR IN CANINE BRUCELLOSIS

LAURA ANETA TUDOR*, I. OGOE **

* The Faculty of Veterinary Medicine "Spiru -Haret"

** The Faculty of Veterinary Medicine Bucharest

Summary

Using comparative methods, was studied the efficiency of much more approaches on a total number of 58 clinical males cases and 7 clinical female cases. For all the 65 cases, the diagnostic of Brucellosis was confirmed by performing serological assays.

The therapeutically was included administration of different types of antibiotics, chemotherapeutical substances and anti-inflammatory substances, and, for some cases the surgery was used.

The proficiency results were observed after chirurgical way was associated with the therapy with antibiotics for a long time (Streptomycin sulphate, Streptomycin wi th Penicillin, Enrofloxacin, etc., administrated for 15-21 days) and anti-inflammatory therapy (Dexamethasone).

METHOD VALIDATION IN VETERINARY CLINICAL LABORATORY

CAMELIA TULCAN, LUCIA OLARIU, MIHAELA PUP

Faculty of Veterinary Medicine Timisoara

Summary

The method selection in clinical laboratory practice needs to be understood in relation to the following validation process. This step involves the standard operating procedures definition, the procedure documentation, an appropriate QC procedure selection for monitoring routine performance, and training personnel to operate the new method [1,19].

The validation report, according with SR EN ISO/CEI 17025:2005, has to include all information about application, methodology and performance characteristics.

Key words: method validation, validation report, quality control

**CRYOPRESERVATION INFLUENCE ON ALKALINE PHOSPHATASE
ACTIVITY IN DOG SEMINAL PLASMA**

**CAMELIA TULCAN, S.CSEH *, VIOLETA IGNA, H.
CERNESCU, LUCIA OLARIU, IULIANA CHI -BUIGA,**

Faculty of Veterinary Medicine Timisoara

*Faculty of Veterinary Medicine Szent Istvan Budapest

Summary

The spermatic fraction is distinguished through the highest phosphatase activity compared to the other fractions component of the ejaculate;

During cryopreservation, a release of the enzyme of the spermatic cell occurs, followed by an increase of its activity in the seminal plasma. After applying the thermal shock, the activity of the alkaline phosphatase shows significant increases, a variation also presented in the specialty literature for other species.

Key words: dog, semen, cryopreservation, alkaline phosphatase, seminal plasma

THE TOLL-LIKE RECEPTORS SIGNALING NETWORK

C. VIOR, E. TÎRZIU, R. TRIF

Faculty of Veterinary Medicine, Timisoara

Summary

The toll-like receptors (TLRs) family of transmembrane proteins is an integrated part of the innate immune system. These receptors are involved in the recognition of the pathogens, the activation of innate, inflammatory mechanisms to control pathogens' spread, and the subsequent activation of the adaptive immune responses directed to the elimination of the pathogens. A subset of TLRs recognizes viral components and induces antiviral responses. This summarizing report presents data demonstrating that TLRs are a type of pattern recognition receptors and act as "sentinels" of the innate immune system, sensing a large array of microbial ligands.

THE ANATOMO- AND HISTOPATHOLOGICAL ASPECT IN A BROILER OUTBREAK REOVIRUSIS

M. I. VIZMAN

Veterinary Faculty of Timisoara, 119 Calea Aradului, Romania

Summary

There were anatomo- and histopathologically analyzed a number of 113 broiler chicks from a 4000 head effective. The parents were diagnosed with avian reovirus by the Institute for Diagnosis and Food Safety in Bucharest.

Clinically some chicks presented underdeveloped plumage, with disheveled feathers and down feathers, others had difficulty walking. Differences in weight existed between individuals.

Microscopically the main lesion is the atrophy of the intestinal villus and the catarrhal exudate.

Key words: avian reovirus, broiler.