

A COMPARATIVE STUDY OF THE BONE DEFECTS HEALING IN THE DOG

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Summary

The comparative study had the purpose to highlight the surgically manipulated capacity of the periosteal layer to influence bone healing. In 16 dogs, divided in two groups, were created tibial shaft bone defects of 2 cm, filled with homologous bone triturate and orthopedic set with a DCP plate.

The DCP plate layout was made over the bone defect, uncovered with periosteum (group 1) and covered with periosteum (group 2). The dogs were clinically and radiographically evaluated every week for a two month period. The morphological recovery analysis was accomplished through microscopy and osteodensimetry. The obtained results show that the covering of the bone defects with periosteum shortens the healing period with about 25%. Microscopically, on the bone defects covered with periosteum it was shown an intense osteogenic activity of the cell layer of the periosteum, characterized through the presence of vascular- connective burgeons in bone tissue that will be organized, phenomenon not seen on the defects treated without periosteum manipulation.

Key words: bone defects, periosteum, homologous bone triturate, dog.

**RESEARCH AND OBSERVATIONS ON THE VASCULAR
PROSTHESIS BIOCOMPATIBILITY IN PIG**

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Summary

For this study we used 10 pigs in which we performed abdominal aortic partial prosthesis using Darkon and PTFE prostheses. In five pigs we used Darkon prostheses, and in the other five subjects PTFE prostheses. The use of these prostheses was performed in order to certify their biocompatibility in animals, their behavior for a longer period of time (2.5 months) and assessment of their integration. Abdominal aorta was the site of implantation, infrarenal portion, and the substituted portion was 3-5 cm in length. Anastomosis was performed with prosthetic whose lumen (diameter) was equal to that of the vessel. Postoperatively in four subjects it was observed a difficulty in lifting and moving but this condition disappeared within 12 hours of the intervention.

There was no evidence of intolerance or adverse reactions from the animals. At 2.5 months, after the slaughter of animals, we recorded the good behavior of the prosthesis and local tissue reaction.

Key words: pigs, prostheses, abdominal aorta

**CERVICAL SPINE CORD DECOMPRESSION VIA VENTRAL SLOT
IN SINGLE INTERVERTEBRAL DISK DISEASE IN DOG**

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Summary

Cervical spine cord decompression was been made on 5 dogs with neurologic disorder from mild ataxia to nonambulatory tetraparesis. For all cases medical therapy provide only temporary improvement. Diagnosis of degenerative disk disease was confirmed by plain radiography and myelography. Just single extradural static lesions compressing the ventral surface of spinal cord was identified. Surgical technique used for decompression was ventral slot without vertebral stabilization. Four of the five cases presented favorable evolution without neck pain and motor dysfunction 6 weeks after surgery.

Key words: dog, cervical disk disease, ventral slot, decompression

FEASIBILITY OF INTRAOSSEOUS INJECTION

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Summary

Intraosseous or intramedullary injection may represent an alternative for administration of fluids, anesthetics and various drugs into the systemic circulation in patients with small size at which vascular access is difficult or impossible to obtain. The purpose of this study was to establish the feasibility of the intraosseous injection in domestic pigeons. For this purpose intraosseous injections were performed on 20 adult pigeons in the distal ulna or proximal tibiotarsal. The intraosseous access was used for anesthetics administration. The accurately intraosseous placement of needle was verified radiographically in two views. Improper positioning of the needle or intraosseous puncture failure at the first attempt was recorded in 15% of cases. Error rate reported in a study conducted on chickens was 21% (16), and 25% in a study conducted on eight pigeons (8). The observed values fall below the percentage recorded in literature for birds, and under the percentage of failure in children, 20% (5). In this study we did not observed the most common complication recorded in the literature, namely leakage of administered drugs into into the surrounding tissues. Also, we have not seen in any individual needle occlusion, anesthetics administration were made with low pressure, without effort. We found only in one bird a moderate reaction, reflected in the withdrawal of the wing, during penetration of bone cortex, the remaining 19 birds were calm, and none had any manifestation of pain occurred during the anesthetic injection. High success rate of intraosseous injection (85%), higher than that reported in literature, allows us to recommend it as a reliable and relatively simple technique in practical terms, for the pigeon.

Key words: pigeon, intraosseous, tibiotarsal, ulnar.

**SPERM PHAGOCYTOSIS TEST AND ITS POSSIBLE
APPLICATION IN BULL SPERM ASSESSMENT: PRELIMINARY
OBSERVATIONS**

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Summary

It is well known that during either artificial insemination (A.I) or natural breeding an immune response takes place into the reproductive tract of the cow. Following insemination, polymorphonuclear leucocytes, mainly neutrophils and macrophages, migrate into the vagina, cervix and uterus, and phagocyte a considerable number of aged, dead or abnormal spermatozoa. The aim of this research was to use this physiological immune response to design a sperm phagocytosis test for determining the 'non-phagocytatable' and 'phagocytatable' sperm population within a frozen-thawed semen sample. To this end, 100 µl of whole blood was mixed with 50 µl of thawed bull sperm, and posteriorly incubated for 60 minutes at 37°C. Blood smears were stained and examined at a light microscope after incubation. At least 100 sperm cells (being attacked or not by the phagocytic cells) were counted and the percentage of spermatozoa undergoing phagocytosis was determined. Different stages of sperm phagocytosis were observed; mostly neutrophils and monocytes were targeting the sperm cells in the acrosome region and tail, also spermatozoa from some samples showed a high tendency to be attached by the phagocytic cells only in the tail (midpiece and principal piece), and occurrence of eosinophil degranulation was very visible when these cells were targeting the tails. Percentages of phagocytosed spermatozoa ranging between 20% to 46% were found, which indicates that this test might discriminate between phagocytatable spermatozoa (apoptotic sperm, necrotic sperm, dead sperm, abnormal sperm, etc) from viable sperm (spermatozoa resistant to phagocytosis). These findings provide a new approach to bull sperm quality assessment and in combination with other tests such as hypoosmotic swelling test (HOST) and CASA system analysis could contribute to the prediction of the fertilizing capacity of bull sperm.

Key words: phagocytosis, bull, spermatozoa, test, leucocytes

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**ASSOCIATIONS BETWEEN HORMONAL THERAPY, PYOMETRA,
AND CANINE MAMMARY TUMOURS**

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Summary

This retrospective study was made to evaluate relationship between hormonal therapy with progestins, occurrence of pyometra and/or mammary tumours in the bitch.

Key words: dog, progestins, mammary tumors, pyometra

**INFLUENCE OF CLINOPTILOLITE ON SOME MINERAL
PARAMETERS IN NEONATAL CALVES**

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Summary

Natural and synthetic zeolites are used in animal nutrition for improving production performance and animal health. The aim of this study was to determine the effect of adding clinoptilolite in colostrum on some mineral parameters in newborn calves. 26 newborn Romanian Black and White calves were used in this study for establishing the influence of clinoptilolite on mineral content in newborn calf serum. Calves were divided in three groups, one representing control group (n=10) and the others experimental groups (E1, n=10; E2, n=6). All calves were bottle fed two times daily, with their mothers' colostrum 1.5L, at 12 hours interval. Calves from experimental group I received colostrum with 5g/L clinoptilolite, starting immediately after parturition, at 12 and 24 hours. In the second experimental group, calves received 20g/L clinoptilolite in the same interval as the first experimental group. Blood samples were taken from all calves before feeding first colostrum, 6h, 16h and 30h after birth for determining calcium, phosphorus, magnesium and iron. Among all assayed minerals, iron increased the most in calves fed colostrum with zeolite added.

Key words: calf, clinoptilolite, mineral content

PREGNANT BITCH UTERINE TORSION (CASE REPORT)

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Summary

This paper describes the case of a haematometra subsequent to a uterine torsion, discovered accidentally during a spaying surgery at a common breed bitch. After celiotomy a spherical outgrowth, 12 centimeters in diameter, with hemorrhagic aspect could be noticed. Underneath this outgrowth a uterine torsion greater than 1080° was found. The pathological examination of the uterus confirmed the macroscopic evaluation; according to the latter, that round shape outgrowth was a haematometra. This being sectioned revealed two conception products of about 2 cm in length. The length act as an indication, the pregnant uterine torsion may be predicted to have occurred approximately 33 days postfertilization. The postoperative evolution of the bitch was a favorable one.

Key words: bitch, uterine torsion, haematometra, preganant

OVARIAN LESIONS ASSOCIATED WITH MYCOESTROGENIC SYNDROME IN GILTS

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Summary

The study followed the effects on prepuberal gilts of molds present in the feedstuff and the morphological features induced on the ovaries.

The 30-day long study was conducted on a cohort of 30 gilts 35 - 40-day-old. During this period, the gilts were fed feedstuff with a 60% content of moldy corn. For the purposes of the experiment the corn was artificially molded by being stored in conditions similar to the ones in which swine food is oftentimes kept: dark, stuffy and humid rooms. *Aspergillus spp.*, *Rhizopus spp.*, *Penicillium spp.* and *Mucor spp.* were isolated from the feed.

At the end of the experiment 10 gilts were euthanased. Internal genitalia were submitted for gross and microscopic examination.

The gross examination of the ovaries revealed, in 7 out of 10 gilts, the presence of cysts, located bilaterally and measuring 0.5 - 0.8 centimeters. In addition, was observed cysts and numerous primary and secondary follicles. The oocytes with aspects of atresia, vacuolisation or loss of structural architecture, basophilic cytoplasm and vacuolated, hyperchromic and picnotic nucleus were observed on microscopic examination. The cysts had a compressed and atrophied granulosa, with a disintegrated architecture.

Ovarian lesions cause irreversible damage on germinative line, resulting in compromising the reproductive function by ovarian induced sterility.

Key words: mycoestrogenic syndrome, gilts, ovarian lesions

OVERVIEW OF EPIDEMIOLOGY AND MORPHOLOGICAL DIAGNOSIS OF CUTANEOUS LESIONS IN DOG

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Summary

This study evaluated the epidemiological features, along with the efficiency of cytological and histopathological diagnosis of cutaneous lesions in dogs. The study included dogs with cutaneous nodules presented during one year long period at the Department of Pathological Anatomy of Faculty of Veterinary Medicine Bucharest.

During 2010, 807 dogs with various lesions were subjected to pathological diagnosis and 236 (29%) of them presented cutaneous/subcutaneous masses. Breed predilection was not detected, but the affected dogs were mainly of medium and large breeds (German shepherd, Boxer, Rottweiler, Amstaff, Cocker etc.). Sex predilection was not apparent, both sexes being almost equally represented (females 53% and males 47%). The age of the dogs ranged from 1-month-old and to 16-year-old (mean age 9-year-old). The trunk was the most common site (33%), followed by the legs (32%), head (27%) and neck (8%). The attempt to correlate the incidence of cutaneous tumors with the season revealed that most lesions appear during spring (35%) and the fewest during summer (15%).

The samples were taken by fine needle aspiration (45%) and surgical removals (55%). 30% of the surgically excised tumors were submitted exclusively to cytological examination, 25% exclusively to histopathological examination and 45% were examined by both methods. This resulted in 86% of all the 236 cases to be cytologically examined.

Most of the tumors were malignant mesenchymal neoplasms (29% as mast cell tumor, hemangiopericytoma, malignant fibrous histiocytoma), followed by benign epithelial neoplasms (25% as follicular tumors), benign mesenchymal neoplasms (21% as lipoma and canine cutaneous histiocytoma) and tumor-like lesions (16% as granuloma/pyogranuloma, nodular panniculitis). 4% of the samples were inconclusive for diagnosis. Most of the malignant mesenchymal neoplasms were diagnosed during spring (34%). Benign epithelial neoplasms and benign mesenchymal neoplasms were diagnosed mainly in the winter and the tumor-like lesions were diagnosed during spring (19%) and summer (18%).

Key words: cutaneous lesions, dog, epidemiology, morphological diagnosis

**DETERMINATION OF BLOOD PRESSURE
USING OSCILOMETRIC METHOD IN BOVINE**

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Summary

Arterial blood pressure measurements were obtained from 150 healthy calves using the oscillometric technique to establish reference values for the specie.

Calves with ages between 2-13 years old (5.77 ± 5.61 years) were examined in standing position. Arterial blood pressure was measured from coccygeal vertebra. Systolic arterial pressure value was 103.75 ± 1.68 mmHg. Diastolic arterial pressure was 56.48 ± 1.29 mmHg. Mean arterial pressure was 72.26 ± 1.37 mmHg.

There were observed increases of arterial blood pressure in following situations: food administration, defecation and urination, and also in decubital state.

Key words: blood pressure, cow, oscillometric method

EFFECTS OF EXPERIMENTALLY INDUCED DIABETES MELLITUS ON HEART IN WHITE RATS

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Summary

Diabetes mellitus is a complex metabolic disorder who can affect disorders at coronary artery and determine a specific cardiomyopathy.

Two lots were made, first – the lot with streptozocin administration (60 mg/kg - 50 Mm citrate buffer) and the second lot – standard lot. Diabetics' animals (n.38) presented an acute course (15 animals) or a chronic course (23 rats). In the first situation, the rats had died in the first 10 days since diabetes mellitus has been induced and the animals presented: inappetence, emaciation, deep deviation – hyperglycemic coma, haematuria (one case) and bloody diarrhea (one case). Blood glucose value was 600mg/dl.

The rats with a chronic course initially presented inappetence, then they started to feed themselves and the body weight started to be almost the same with the standard lot weight. Blood glucose value was 406.22 ± 24.85 mg/dl.

The rats with an acute course presented electrocardiographic changes: bradycardia, left bundle branch block, ST segment depression, atrial standstill, first, second and third degree AV block and ventricular fibrillation.

In diabetics' rats with a chronic course the electrocardiographic diagnosis was: left ventricular enlargement, right ventricular enlargement and ST segment depression. In conclusion, we think that in rats with acute course the ECG's changes followed diabetic ketoacidosis (blood exams confirmed), but in rats with chronic course the changes were induced by cardiac and coronary artery changes (histological confirmed).

Key words: diabetes mellitus, rats, streptozocina

CURRENT TRENDS IN DIABETES MELLITUS - PANCREATIC BETA CELL REGENERATION AND REPLICATION IN RATS

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Summary

Pancreatic beta cells status is crucial for the appearance and evolution of diabetes mellitus in both animals and humans. Glycemic homeostasis of the organism depends on the condition and number of intact beta cells. A review of methods that contributed to the development and the strengthening of the pancreas regeneration techniques and also the new methods that generated better results is made. The most important methods that developed and improved in last years are islets grafts, stem cell transplantation and operative aggrissions on the pancreas. Regeneration and replication of pre-existing beta cells following partial pancreatectomy has been proved in many animal models. It has been demonstrated that complete differentiated beta cells keep a significant proliferation capacity. New methods were developed in order to stimulate post-transplant islet survival, prevent apoptosis, promote cell growth, protect cells from the immune response and decrease the rate of auto and allograft rejection. In the last years researches were focused mainly on the transplantation of islets and pluripotent stem cells. Though it proved to be successful, pancreatic transplantation is an invasive method and can not be performed in patients having complications and advanced states of diabetes. The decrease of rejection rate is being followed, by using different types of immunosuppressants that prevent autoimmune reactions from the body. Rapamycin (sirolimus) or / and calcineurin inhibitor tacrolimus (FK506), that have been mostly used, were toxic for the pancreas having deleterious effects on beta function and/or insulin sensitivity, thus the euglycemic state is kept for a short period of time and only for 10% of the cases. Combining these methods could mean the elimination of the necessity for insulin treatment which controls glucose concentration but is expensive and has major and life threatening risks. At the end, current and innovative directions to developing new techniques of restoring a normal number of beta cells for a normal function of the body are presented.

Key words: pancreas, beta cell, regeneration, replication, stem cell

**INFLUENCE OF MELATONIN IMPLANTS ON POSTPARTUM
REPRODUCTIVE INDEXES IN TURCANA EWES**

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Summary

Investigations were carried out at the Didactic Station of USAMVB Timisoara, on mature ewes from the indigenous Turcana breed. The ewes were inserted subcutaneous with Melatonin implants of 18 mg (Melovin). The current research, shown that from the local Turcana breed, can be obtained superior reproduction indexes if the animals are being inserted with Melatonin implants with 35 days before the mating season, differences from the untreated sheep are significantly ($p < 0.05$). However, on sheep that were used Melatonin implants, the lambing interval was reduced with 50%. There is a suggestion that the use of melatonin implants Melovin® type near the normal breeding season increases the reproductive performance of ewes from Turcana breed.

Key words: ewes, melatonin, reproduction, Turcana

A CASE REPORT OF VALVULAR AND MURAL ENDOCARDITIS IN A BENGAL TIGER

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Summary

A 16-year-old female of *Panthera tigris* clinically diagnosed with chronic renal failure was submitted for necropsy. Cytological investigations were focused on effusions sampled from peritoneal cavity and thorax. Fragments of organs were used for routine histopathology. Gaffney's one-hour Giemsa stain was used for bacterial colony identification.

Blunted teeth with pulp cavity exposure associated with periodontal disease and gingivitis, endocarditis confined to aortic, mitral, tricuspid valves and mural endocardium of right ventricle, myocardial fibrosis, ascites, hydrothorax, cardiac cirrhosis, interstitial nephritis and proliferative glomerulonephritis, uremic enteropathy and gastropathy, hemorrhages and infarction of spleen, embolic pneumonia and bronchointerstitial pneumonia were the most important gross and histological lesions. Bacterial colonies were identified in endocardium and lungs.

Prolonged bacteremia and antigenemia which produce high concentration of soluble immune complexes are associated with dental and endocardial injuries. Thus, glomerulonephritis may be the consequence of periodontal disease and endocarditis. Infective endocarditis and subsequent cardiac failure are also responsible for pulmonary inflammation, spleen infarction and cardiac cirrhosis.

Key words: tiger, valvular and mural endocarditis

CLINICAL STUDY CONCERNING VARIATION OF BLOOD PRESSURE MEASURED BY OSCILLOMETRIC METHOD IN CLINICALLY HEALTHY CATS

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Summary

The study was carried out on 159 healthy cats, aged between 11 months and 14 years, of different breeds. Systolic blood pressure (SBP), diastolic blood pressure (DBP) and mean blood pressure (MBP) were measured by oscillometric method. In all cats, blood pressure was measured at the thoracic limb, on the medial artery level, by using cuffs width of about 30-40% of forearm circumference. In a subgroup of 54 cats, blood pressure was measured, successively, both at the base of the tail and at the thoracic limb. The blood pressure values obtained from the *British Shorthair* cats were significantly higher ($p < 0.05$) than at the *Persian*, *Burmese*, *European* or *Siamese* cats. No significant difference was found in the blood pressure obtained from the forelimb and the base of the tail. Blood pressure measurement after about 15 minutes of acclimatization to the clinical environment reduces significantly the influence exerted by stress on blood pressure values.

Key words: blood pressure, cats, oscillometric method

**VARIATION OF THE HEMATOLOGICAL PARAMETERS IN
TRAINED AND UNTRAINED LIPIZZAN HORSES**

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Summary

The research was performed on 23 Lipizzan horses divided in two groups based on the training status – trained and untrained horses. The trained horses were used in carriage driving and dressage competition for at least two years. The following parameters were determined: red blood cells (RBC), white blood cells (WBC), hemoglobin (Hgb), hematocrit (Hct), erythrocyte indices. Differential WBC counts were determined from smears stained by the Diff-Quick method. In trained group, at rest, mean RBC count was within reference range without a significant difference compared with untrained group. Instead, there were significant differences ($p < 0.005$) between groups for mean values of Hgb. Hct, erythrocyte indices, WBC counts were within reference values but we registered significant differences ($p < 0.005$) regarding the percentage of neutrophils and lymphocytes between groups.

Keywords: horse, hemogram, breed, training, Lipizzan

**COMPARATIVE ANALYSIS OF THE PQ OR PR INTERVAL IN
DOGS SUFFERING FROM CARDIAC AFFECTIONS DEPENDING
ON SEX**

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Summary

The investigations performed on a number of 84 dogs (n=84 females and n=28 males) with cardiac symptoms have been completed in order to emphasize some changes of the PQ or PR interval duration, recorded in the six bipolar and unipolar simple derivations (DI, DII, DIII, aVR, aVL, aVF).

Analyzing the PQ or PR interval duration depending on sex it becomes clear that, regarding male dogs suffering from cardiac affections 73.25% were registered with a duration of this interval within physiologic limits (PR=0.06-0.13 sec.), 23.35% were registered over 0.13 sec., and 3.5% were beneath 0,6 sec. Regarding the female group 72.3% had a PR interval duration within physiologic limits, 22.6% were above 0.13% seconds and 5.1 were registered with a duration beneath 0,06 seconds.

A larger rate of males suffering from heart disease, comparing to females, were registered with a longer duration of this interval, which implies atrioventricular conduction abnormalities.

Key words: dogs, heart, electrocardiogram, PQ or PR interval.

**OBSERVATIONS REGARDING COMPARATIVE ANALYSIS OF
THE AMPLITUDE OF THE ST SEGMENT ON DOGS WITH
CARDIAC DISEASES, DEPENDING ON GENDER**

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Summary

The investigations were made on 84 dogs with heart disorders manifested through cough, dyspnoea, intolerance to effort, dyspeptic syndromes etc. had the purpose to evidence positive or negative gaps of the ST segment, in order to diagnose circulator disorders on myocardium, endocardium and epicardial level. The electrocardiograms were made in 6 simple unipolar, bipolar derivations (D1, D2, and D3, aVR, aVL and aVF). The analyse of the gap on ST segment amplitude found that 44.51% of female dogs with heart diseases presented an isoelectric ST segment, in 31.27% was elevated and in 24.3% was depressed.

Key words: heart disorder, dog, electrocardiogram

**IN UTERO POTASSIUM DICHROMATE EXPOSURE OUTCOME
ON BIOMARKER OF EXPOSURE (CHROMIUM LEVEL) AND
INTEGRITY (HISTOARCHITECTURE) OF REPRODUCTIVE
SYSTEM IN MALE RAT**

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Summary

Chromium is found in many compounds of the Earth's crust. It exists in several oxidation states but Cr III and Cr VI species are the most stable and common forms. The main sources of hexavalent chromium are electroplating processes, stainless steel welding and vulcanizing industries, tanneries. The aim of this study was the evaluation of Cr VI compounds exposure impact on some male reproductive biomarkers. The objectives were evaluation of chromium level and histoarchitecture of genital organs (testis and epididymis) and sexual accessory glands (prostate, seminal vesicles and bulbo-urethral glands) in "in utero" exposed rats. Female rats were exposed during gestation via drinking water to potassium dichromate as follows E₁ group: 25 ppm Cr VI (LOAEL); E₂ group: 50 ppm Cr VI; E₃ group: 75 ppm Cr VI and the C group received tap water (without chromium content). After delivery, pups received tap water until sexual maturity when the rats were sacrificed following protocols and ethical procedures. The study pointed out that chromium is concentrating in genital organs and sexual accessory gland, the hierarchy being: prostate, bulbo-urethral glands, seminal vesicles, epididymis, testis, and induces changes in their structure – congestive and degenerative lesions.

Key words: chromium VI, male, genital organs

**BODY AND SEXUAL ORGANS WEIGHT DYNAMICS AFTER
POTASSIUM DICHROMATE EXPOSURE IN SUCKLING PERIOD
OF MALE RATS**

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Summary

The aim of this study was the evaluation of morphological biomarkers of reproductive toxicity: body weight, weight of genital organs (testes, epididymis) and sexual accessory glands (seminal vesicle, prostate and bulbo-urethral gland) at sexual maturity after exposure to potassium dichromate (Cr VI) in suckling period. Female rats and their pups, divided in four groups: three experimental and one control, were exposed via drinking water to potassium dichromate after delivery as follows: E₁ 25 ppm Cr VI (LOAEL); E₂ 50 ppm Cr VI; E₃ 75 ppm Cr VI, control received tap water without chromium content. After weaning and until sexual maturity pups received only tap water without chromium.

The study pointed out: significant decrease of body weight comparative to control group and in inverse, significant, correlation to exposure level; significant decrease of all genital organs and sexual accessory glands weight comparative to control group and in inverse, significant correlation to exposure level.

Key words: rat, male, weight, chromium VI

**POTASSIUM DICHROMATE SIX MONTHS EXPOSURE IMPACT
ON BIOMARKER OF EXPOSURE (CHROMIUM LEVEL IN
SEXUAL ORGANS)**

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Summary

Chromium is a naturally occurring element found in rocks, animals, plants, soil and in volcanic dust and gases. It's an element that can exist in a variety of oxidation states. Chromium carcinogenicity was first identified over a century ago and Cr VI compounds were amongst the earliest chemicals to be classified as carcinogens. Hexavalent chromium compounds are generally man-made. The study carried out on 28 white Wistar male adult rats divided equally in three experimental (25 ppm Cr VI- LOAEL, 50 ppm Cr VI, 75 ppm Cr VI) and one control group which received tap water for six months, pointed out: significant accumulation of chromium in genital organs and sexual accessory glands comparative to control, directly, significantly, correlated to exposure level. The hierarchy was: prostate, bulbo-urethral glands, seminal vesicles, epididymis and testis.

Key words: chromium VI, male rats, concentration, sexual organs

**BODY WEIGHT DYNAMICS IN RATS EXPOSED TO ALUMINIUM,
MELATONIN AND *SEMPERVIVUM* EXTRACT**

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Summary

The exposure of male Wistar rats during one month to aluminium (1000 ppb in drinking water), melatonin (10 mg/100 ml water) and aqueous extract of *Sempervivum tectorum* (6% infusion) emphasised: significantly increased body weight in all cases of exposure substances comparative to control group and not significant differences regarding the body weight in groups exposed to aluminium, melatonin or *Sempervivum* extract administrated alone comparative to groups which received melatonin or *Sempervivum* extract combined with aluminium.

Key words: aluminium, *sempervivum*, melatonin, body, weight

CONSEQUENCES OF ALUMINIUM CHRONIC EXPOSURE ON RATS LIVER, SPLEEN AND KIDNEY HISTOARHITECTONIC

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Summary

The study was carried out on 24 male Wistar rats divided in four groups as follows: one control group (C) receiving tap water and five experimental groups (E): E₁ – 200 ppb aluminium, E₂ – 400 ppb aluminium, E₃ – 1000 ppb aluminium as aluminium sulphate in drinking water. After six months of exposure the rats are euthanized, the liver, spleen and kidney were sampled, fixed with alcohol and stained using haematoxylin-eosin method. The examination under light microscope emphasized: tubular epithelial necrosis and glomerulonephritis in kidney, necrosis in liver cells, limpho-hemopoietic zone reduction and vascular ectasia in spleen.

Key words: aluminium, liver, spleen, kidney

**THE CONSEQUENCES OF PUBERTAL EXPOSURE TO LEAD
ACETATE ON FUNDAMENTAL MARKERS OF THE
REPRODUCTIVE FUNCTION (THE CHARACTERISTICS OF THE
SEXUAL CYCLE: INTERVAL, REGULARITY, DURATION) IN
FEMALE RATS**

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Summary

The objective of this study was the evaluation of the reproductive functionality represented by fundamental biomarkers (duration of sexual cycle and sexual cycle regularity) of adult female rats exposed to lead acetate during the prepubertal period.

The study was carried out on 32 adult Wistar female rats exposed only during the prepubertal period to lead acetate (E₁: 50 ppb Pb, E₂: 100 ppb Pb, E₃: 150 ppb Pb) and resulted in: significant increase of sexual cycle duration comparative to the control group, over the physiological limits and direct correlation to the exposure level; modification of sexual stages regularity: significant decrease of sexual cycles percentage with proestrus, estrus and diestrus I, diestrus II in physiological limits as duration comparative to the control group and inversely correlated with the exposure level; appearance of sexual cycles with absent estrus, directly correlated with the exposure level; appearance of sexual cycles with prolonged proestrus, diestrus I and II, directly, significantly correlated with the exposure level.

Key words: lead, rats, sexual cycles, pubertal.

**THE IMPACT OF LEAD ACETATE INTAKE ON FEMALE RAT'S
ORGANS AND TISSUES AFTER *IN UTERO* EXPOSURE**

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Summary

The motivation of this study was to evaluate the impact of *in utero* exposure to lead acetate on organs and tissues of female rats.

The objective was to assess the lead level in organs and tissues from exposure to lead acetate in drinking water (50, 100, 150 ppb Pb). Exposure to lead acetate resulted in significant increases in the concentration of lead in tissues and organs in the experiment (E) groups compared to the control (C) group and in direct correlation with the exposure level but with varying degrees of significance.

Key words: lead, *in utero*, organs and tissues

SURVEY OF DEOXYNIVALENOL OCCURRENCE IN FOODSTUFFS MARKETED IN TIMIS COUNTY

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Summary

A total of 101 commercially available samples of cereals and cereal-based foods including small cereal grains intended for human use, bread and related products, pasta, breakfast cereals and other foods were purchased from Timis County producers and supermarkets during a period of three years (2008-2010). The trichothecene deoxynivalenol (DON) was analyzed quantitatively using competitive enzyme immunoassay (ELISA) kits. Detected levels ranged between 1.6 and 372.78 µg/kg. Both the highest and the lowest DON concentration were found in breakfast cereals. Overall, DON was detected in 67% of all samples, with an average concentration in positive samples of 111.28µg/kg and a median of 80.58 µg/kg. However, none of the sample concentrations were above the maximum level adopted by the European Commission (EC). Whereas most surveys focus on DON contamination of different crops (wheat, barley, maize etc.) this paper represents the first screening on a variety of foodstuffs marketed in an area of western Romania.

Key words: Deoxynivalenol, foodstuffs, ELISA, survey, Romania.

THE INFLUENCE OF BROMADIOLONE ON SOME HEMATOLOGICAL PARAMETERS IN RATS

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Summary

The aim of the study was to assess some hematological parameters consecutive administration of the bromadiolone compound Lanirat (bromadiolone 0.25% a.i.). The study was carried out on 30 adult white Wistar rats divided in three groups: a control group (C) and two experimental ones (E₁: 1.5 mg/Kg b.w. as unique dose in oily solution; E₂: 0.30 mg/Kg b.w./day, in oily solution, five days consecutive). Hemoglobin (Hb), osmotic resistance (O.R.) (Drabkin's method) and erythrocyte count (E) (automatic analyzer MS 9 VET) were determined at 2, 4, 24, 48, 72 and 96 hrs in E₁, and at 2, 4, 24 hrs after the first administration, at 24hrs after the second, third, and fourth administration in E₂ (after the fifth administration was not possible, because all the rats died). In E₁, until 24 hrs, Hb values and E count decreased significantly ($p < 0.01$) (Hb: - 5.18 %, 2 hrs; - 26.27% 4 hrs; -43.81% 24 hrs; E: - 0.86 %, 2 hrs; - 39.66% 4 hrs; -60.82% 24 hrs; and, after that improvement of parameters values was recorded but not reaching the initial values (96/0 hrs Hb: - 24.05%; E: - 14.97%). In E₂, Hb and E. values decreased continuously (96hrs/0 hrs: Hb: - 69.20%; E: - 61.59%). Minimal OR decreased continuously in both experimental groups, the hemolysis percentage being higher in E₂ group. After the fifth administration all rats died, presenting unclotted blood, hemolysis tendency, liver fat degeneration and cerebral congestion. The study pointed out the more sever effect of bromadiolone repeated doses (E₂) on all evaluated parameters.

Key words: hemoglobin, erythrocyte, osmotic resistance, bromadiolone

**LIVER ENZYMES ACTIVITIES RESPONSE IN DEUTERIUM
DEPLETED WATER (DDW) ADMINISTRATION AND Cr (VI)
INTOXICATED RATS**

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Summary

The present paper concerns with the study of some hepatic enzymes activities response after deuterium depleted water (DDW) (30 ppm deuterium) administration in chromium (VI) intoxicated rats Chromium (VI) affects especially the liver. The hepatocyte status is depicted by the alanin aminotransferase (ALT), aspartat aminotransferase (AST) and alkaline phosphatase activities. The effect of chromium (VI) was maintained for 60 days for all groups. The 60th days treatment with DDW help the liver to recover (the activity of ALT, AST and PA became normal).

Key words: Deuterium depleted water, chromium (VI), liver enzymes

**OXIDATIVE STRESS MARKERS BEHAVIOR IN CHROMIUM (VI)
INTOXICATED FEMALE RATS`**

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Summary

Deuterium depleted water has a special influence on cells and tissues development. A decreasing of the deuterium concentration in tissues or bodies, significant slow down the proliferation of a lot of types of cancer. The aim of this work was to determine the antioxidant effect of deuterium depleted water (DDW) on rats with chromium induced oxidative damages (20 ppm Cr/ b.w. single dose as $K_2Cr_2O_7$).

Malondialdehyde (MDA) and glutathione (GSH) blood levels were determined.

After Cr(VI) intoxication, as expected, increased MDA and low GSH levels were registered. DDW administration could maintain both normal MDA and GSH levels.

Key words: Malondialdehyde, Glutathione, Deuterium depleted water, Cr (VI)

**MORPHOLOGICAL CHANGES IN CAT PARVOVIROSIS / FELINE
PANLEUCOPENIA AND THEIR RELEVANCE IN DISEASE
HISTOPATHOLOGICAL DIAGNOSIS**

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Summary

The research was conducted by the necropsy of 15 cat cadavers, aged between 2 months - 1.5 years, different races and sexes, of which eight cases (53%) presented, at the internal examination, parvovirus specific organic lesions.

Macroscopically were highlighted: catarrhal-haemorrhagic gastritis and jejuno-ileitis, thymic, lymph node and spleen hypotrophy: marginal red splenic infarction and acute lymphohistiocytic myocarditis and also at two kittens, cerebellar hypoplasia.

Histopathological, were detected: in the stomach and intestine, hydropic degeneration, detachment of epithelial coverage, and glandular-giganto syncytial cell formation with intranuclear viral inclusions oxifile presence, integrity and disintegrating in the enterocyte, pathognomonic for parvovirus, in the thymus, lymph nodes and spleen, lymphocyte migrations, lymphocyte destruction accompanied by atrophy, dystrophy and necrosis of myocardial fibers, the cerebellum, two kittens, neuronal lysis and neuronal dystrophy .

Key words: cat parvovirus, gastroenteritis lesions in lymphoid organs and cerebellum

MORPHOLOGICAL ASPECTS IN RENAL SYNDROME IN AVIAN INFECTIOUS BRONCHITIS

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Summary

Avian infectious bronchitis, renal (kidney) form, was macroscopically and microscopically diagnosed in 50 corpses of chickens, aged 1-24 days, ROSS 308 hybrids, from 120 corpses necropsy at the discipline of forensic medicine between October 2009 and February 2011.

Macroscopically, at the same corpses, we observed the following respiratory lesions: serous and/or sero-catarrhal tracheitis, active and/or passive pulmonary congestion, pulmonary edema, catarrhal bronchopneumonia and pulmonary dystrophies catarrhal laryngotracheitis, associated with renal lesions (nephrosis protides and obliterans uric stones). By collating epidemiological, clinical, morphological, data with the serological ones (ELISA technique) was established the diagnosis of avian infectious bronchitis.

Histopathological was revealed: sero-catarrhal tracheitis, catarrhal bronchopneumonia, tubular granular nephrosis, lympho-histiocytic interstitial nephritis, at all cases; uric acid crystals in the renal tubule lumen, severe renal epithelial degeneration associated with cytolysis and epithelial desquamation in some places, at 24 chickens aged 1-4 days; uric granuloma in 4 cases, 24 days old.

Key words: chicken, avian infectious bronchitis, renal form, morphopathological aspects

**THE TOPOGRAPHY OF THE INTERDIGITAL SINUS
(BIFLEX CHANNEL) IN SHEEP**

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Summary

Interdigital sinus represents an invagination of the interdigital skin that appears only in sheep. This contains sweat and sebaceous glands which have various properties such as protection, sex-appeal, and neonatal recognition of the lambs.

Key words: Interdigital sinus, sheep, sweat and sebaceous glands.

LUCRĂRI ȘTIINȚIFICE MEDICINĂ VETERINARĂ VOL. XLIV(2), 2011, TIMIȘOARA

**THE TOPOGRAPHY OF THE PALPABLE MUSCULARY LYMPH
NODES IN THE JACKAL (*CANIS AUREUS*)**

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Summary

The features of the palpable musculary lymph nodes in jackal are very poor studied in its complexity. Nevertheless, there is no study focused on the topography and on the comparison of musculary palpable lymph nodes in jackal and dog.

Key words: lymph node, topography, jackal, dog.

**MORPHOLOGICAL ASPECTS OF DIGESTIVE APPARATUS TO
OWL (*ASIO FLAMMEUS*) AND FALCO CHERRUG (*BUTEO
BUTEO*)**

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Summary

Because of their high metabolic rates, birds consume more food in proportion to their size than most animals. As a group, nocturnal bird of prey, owl consume just about any tipe of food what can imagine, including rodents, seeds, snails, grass, fruits, insects, larves. To meet their metabolic needs while remaining as light as possible and as efficient as possible, to be efficient flyes, the digestive system of birds has to be both as light as possible and as efficient as possible. The need to keep weight as low as possible also mean that, except perhaps prior to migration, there is a limit to the amount of a bird can store. Falco cherrug and owl differ in morphology of system digestive. Owl is bird of prey and hunts when light levels are low so if an attacking owl misses its prey, relocating it may be difficult.

Key words: owl, falco cherrug, morphological aspects of tube digestif

**ASPECTS REGARDING THE MORPHOLOGY OF THE MUSCLES
OF THE PECTORAL GIRDLE IN GUINEA – FOWL (*NUMIDA
MELEAGRIS*)**

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Summary

The study was realized on eight guinea fowls. Pectoral girdle muscles, adjacent to the shoulder joint were dissected. The directional terms used are based on the wing in a fully extended position (flight position). Every muscle has been described the general appearance, origin and insertion as well as relationships with other parties. It has observed two distinct groups. The first represented by mm. latissimus dorsi, rhomboideus and serratus involved in attachment between the wing and the trunk and the second, represented by mm. scapulohumeralis cranialis and caudalis, subscapularis, subcoracoideus, coracobrachialis cranialis and caudalis, which are designed to provide specific localized control of the movements of the humerus, such that the powered downstroke and upstroke are both facilitated, as well as controlled, in the synchronized wingbeat.

Key words: pectoral girdle muscles, guinea fowl

THE INFLUENCE OF PROTEIN FEED TYPE ON CARCASS QUALITY IN BROILERS

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Summary

An experiment was conducted to assess the effects of supplementation of traditional recipes with different meals obtained from oil processing industry, in particular bio-fuels. Experiments were conducted on broilers, divided into four groups: a control group (fed with commercial feed), 2 (fed with soybean meal supplement), 3 (fed with rapeseed meal supplement), and 4 (fed with sunflower meal supplement). Recipes were then balanced, from energy-protein point of view, by adding oil. At the end of the growing period, broilers weight were measured before slaughter, after bleeding and plucking technological stages and also the parties with high commercial value of the carcass. It was found that the proportion of participation of parties with high commercial value (chest and thighs) to the weight of living is higher by 2-4% in the groups receiving food supplement. Thighs were better developed in males and breasts were better developed in females regardless of feeding recipes. The chest, in relation to living weight, represents the heaviest part in the group fed with soy and control group recorded the lowest value. The lowest participation rate of thighs in living weight was noted in the lot of chicks fed with soy supplement, and the highest was noted in the group fed with sunflower supplement.

Key words: broilers, bio-fuels, nutrition, feed, meal

THE EFFECT OF VITAMIN B₁₂, COBALT AND ONE WATER-SOLUBLE MINERAL AND VITAMIN CONCOCTION ON THE DEVELOPMENT OF BEE FAMILIES

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Summary

Cobalt and vitamin B12 are two nutrients that have been reported in pollen and plants that have had positive results in bees feeding, confirmed by various authors. It was conducted an experiment of bee feeding with syrup with supplement from these elements in an area where cobalt is absent from the pollen of flowers. The experiment was conducted for 10 days during the flowering period of fruit trees. Four groups were formed: Group 1: 22.75 dm² brood - still fed with vitamin-mineral mixture (preparation Forssatom) 0.5 ml / l, Group 2: 23.5 dm² brood was fed with vitamin B12, Lot 3: 25.2 dm² brood was further fed with 1.8 ppm Cobalt Co., Lot 4: 24, 5 dm² brood was fed only not-added syrup (control group). The syrup was administered in doses of 300 ml / day per family. At the end of the experiment it was found that although honey bees develop and operate normally in the absence of cobalt and vitamin B12, the presence of cobalt in the diet increased the number of bee larvae in bee families with 29.24%. The combination of cobalt with other minerals and vitamins increased the number of larvae with 38.41%. The presence of vitamin B12 in the diet do not influences the number of larvae of the kept bees.

Key word: cobalt, vitamin B12, bees, nutrition.

**INFLUENCE OF ENERGY AND PROTEIN LEVEL OF THE FEED
ON CARCASS CHARACTERISTICS AND MEAT QUALITY AT
HYBRIDS „ROSS 308” AND „ARBOR ACRES”**

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Summary

In this paper was studied the influence of feed energy-protein level on the carcasses characteristics (participation of the trenched parts in the whole carcasses structure and meat/bone ratio) and the meat chemical composition from different anatomical regions at hybrids: „Ross 308” and „Arbor Acres” slaughtered at 42 days old. Broilers were divided in four groups: control group (Lc)-„Ross 308” hybrid and experimental group-„Arbor Acres” hybrid. For feeding have been given feed mixed with different level of energy and protein. After slaughter, at each group were determined carcasses characteristics using gravimetric measurements and the meat chemical composition with STAS methods. For participation of the trenched parts in the whole carcass structure were registered the highest values at Lc group for breast and wings and Lexp.₂ group for thighs and shanks. In this case, at the Lexp.₃ group were been the lowest values. The meat/bones ratio has registered values from 4.00 at Lexp.₃ group up to 4.37 at Lexp.₁ group. For meat chemical composition, in the breast muscles was a greater amount of water and proteins, but the situation was reversed in the muscles of the thighs and shanks. Consequently, after chemical composition assessment in studied muscles at Lexp.₂ group was found the highest protein content and lowest lipids content, as compared with Lc, Lexp.₁ and Lexp.₃ groups. At the Lexp.₂ group, recipes with higher protein and energy level has positively influenced the participation of the trenched parts in the whole carcass structure (breast, wings, thighs and shanks), meat/bone ratio, dry matter contents and proteins contents from meat.

Key words: broiler chicken, chemical composition, meat, meat/bones ratio

EFFECT OF DIFFERENT LEVELS OF DIETARY PROTEIN AND ENERGY ON THE GROWTH AND SLAUGHTER PERFORMANCE AT LOHMANN BROILER MEAT HYBRID

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Summary

In this paper was studied the influence of feed energy-protein level on the growth performance (average daily gain, feed conversion), slaughtering efficiency and participation of the trenched parts in the whole carcasses structure at „Lohmann Meat” hybrid slaughtered at 42 days old. The two groups (control group-Lc, experimental group-Lexp.) were given feed mixed with different level of energy and protein. Chickens were weighed at: 1, 7, 14, 21, 35 and 42 days. After slaughter, from each group were sampled 30 carcasses, was determined carcasses characteristics using gravimetric measurements. At 42 days, the experimental group was recorded higher values for the body weight (+3.95%) and average daily gain (+4.18%), compared with the control group. This performance has been achieved through an individual average feed intake of at 4.12 kg (Lexp.) to 4.26 kg (Lc), meaning a value of 1.692 kg feed/kg gain at group Lexp. and 1.826 kg feed/kg gain at Lc group. The fresh carcasses at slaughtering efficiency had values for males chickens from 78.81% (Lc) to 80.19% (Lexp.) and for females chickens from 77.58% (Lc) to 78.10% (Lexp.). After refrigeration, the values were lower by 1.75 up to 1.89%. For participation of the trenched parts in the whole carcass structure were registered the highest values at group Lexp. for breast, wings, thighs and shanks, compared with Lc group. At group Lexp, which received feed with high protein-energy level, average values for feed conversion ratio (FCR) were lower and for other studied indicators were higher as compared with control group.

Key words: „Lohmann Meat” hybrid, growth, average daily gain, feed conversion, slaughtering efficiency

**RESEARCH CONCERNING THE IMPACT OF COW AGE AND LACTATION
STAGE ON THE COUNT OF SOMATIC CELLS IN COW MILK**

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Summary

The present paper had the main objective of evaluating the effect of the cow age and lactation stage on the count of somatic cells in cow milk. The analysis was performed based on 900 evaluated samples, from six cow houses (three farms located near Bucharest). The present survey took place in 2010, and the period of study was three months. The data was verified statistically using GLM procedure (the analysis of variance), considering the herd effect, the father effect, the month of sampling, the cow group (multiparas and primiparas), lactation stage at which the sample was collected. The effect of all these factors on basic milking yield and the content of somatic cells were mostly highly significant. It was observed that concerning the milk use of cows, in time, the number of somatic cells increased, while the milk, fat and protein yields decreased.

Keywords: cow age, milk yield, lactation stage, somatic cells

ASSESSMENT OF THE AIRBORNE FUNGI IN TIE-STALL DAIRY BARNs

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Summary

The aim of this work was the quantitative and qualitative assessment of the fungi in the air of dairy cattle barns with tie stalls. The study was ruled in 20 barns in Transylvania, between December 2009 and January 2010. In each barn two determinations were made (1/month) in the morning and in the evening, in three different points (in the centre and at both ends). A total number of 240 samples were collected and analysed. The number of fungi varied in the investigated barns between 2.00×10^3 CFU/ m³ and 4.15×10^4 CFU/ m³ in the morning and between 5.6×10^3 CFU/ m³ and 7.85×10^4 CFU/ m³ in the evening, with mean values of 1.56×10^4 CFU/ m³ and 2.31×10^4 CFU/ m³, respectively. Although the number of fungi was higher in the evening than in the morning, the difference was not statistically significant (t test, $p > 0.05$). The dominant airborne fungi were within the genera *Penicillium*, *Aspergillus*, *Cladosporium* and yeasts. The study showed that both in the morning and in the evening the numbers of fungi are quite variable and elevated in the air of dairy cattle barns with tie stalls. As a result, the dairy cows and farm workers can be exposed to large quantities of airborne fungi that pose a potential risk of disease.

Key words: airborne fungi, dairy cattle, indoor air quality, air microbiology

**DAIRY COW WELFARE ASSESSMENT IN TRANSYLVANIA
FARMS USING ANIMAL NEEDS INDEX**

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Summary

The aim of the work was to assess dairy cows welfare in both tie-stall and free-stall farms in Transylvania (Romania). Given that in Romania there is no approved welfare assessment system for farm animals, the Austrian system ANI 35 L/2000-cattle (Animal Needs Index 35 L/2000 for cattle) was used. We assessed forty cattle houses over the period of January – February 2010. The obtained overall ANI scores for the forty barns ranged between 10.5 and 37 points with a mean value of 23.77 ± 6.19 points. The ANI scores were significantly higher in the free-stall barns than in those with tie-stalls (Mann-Whitney test, $p < 0.0001$). The mean scores for the five categories of factors were: 5.50 ± 2.22 for locomotion, 5.14 ± 2.45 for social interactions, 4.11 ± 0.93 for flooring, 4.34 ± 1.20 for light and air and 4.68 ± 0.90 for stockmanship. The mean scores obtained for these groups of factors were significantly lower in tie-stall barns compared to free-stall system (Mann-Whitney test, $p < 0.001$), with only one exception, namely, the category of stockmanship, which had higher scores in tie-stall houses (Mann-Whitney test, $p < 0.01$). The obtained results indicate better welfare of dairy cows in free-stall housing than in tie-stall systems. Proper measures are needed in all the barns which obtained low ANI scores in order to improve the welfare of dairy cows, with special attention to flooring, air and light and stockmanship.

Keywords: welfare, dairy cattle, free-stall, tie-stall, locomotion

**INVESTIGATIONS REGARDING ACUTE PHASE PROTEINS
AS WELFARE INDICATORS IN DAIRY COWS**

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Summary

The aim of the present study was to investigate the significance of acute phase proteins as welfare indicators in dairy cows. Twenty Red Holstein cross-bred dairy cows were included in this study and divided in two groups: ten prepartum cows (ninth gestation month) and ten postpartum cows (5 to 22 days following parturition). All cows were assessed on the same day using a welfare scoring system comprising eleven indicators: rising behaviour test; lameness; cleanliness; injuries; nasal, ocular and vulvar discharge; hampered respiration; avoidance distance test; abnormal behaviour and body condition score. The back fat thickness was measured objectively by ultrasound. Blood samples were collected from the jugular vein from all cows during the following morning. A complete blood count was performed for each cow. Fibrinogen, haptoglobin and serum amyloid A were measured for each cow by immunoassay methods. Mean total welfare scores were higher in postpartum cows than in prepartum cows, reflecting a reduced welfare following parturition. Haptoglobin was the only parameter that appeared markedly increased compared to reference values, thus reflecting the physiological stress response associated with gestation and parturition.

Key words: welfare, acute phase proteins, cows

THE HISTORY OF HORSE BREEDING IN MARAMURES

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Summary

With the lapse of time, the territory of Maramures was penetrated by various breeds of horses either *via* cattle markets or war spoils. Several better products were tried to be obtained by breeding in pure breed and by replacing the horses that were of no pure breed; also, the pure breed horses were purchased from the studs; for mating purposes there were used only the good stock stallions, all having an improving breed part with the existing horses during the respective time period.

Key words: thoroughbred; breeder; studs

**SURVEILLANCE PROGRAM, CONTROL AND ERADICATION OF
RABIES IN FOXES IN ROMANIA**

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Summary

The surveillance, control and eradication of rabies in foxes in Romania takes place according to Order no. 29 of 28 March 2008 to approve the sanitary and veterinary Regulation concerning the general measures to prevent and control rabies in wild and domestic animals and the Decision no. 55 of 16 January 2008 to approve the Strategic Programme for monitoring, control and eradication of rabies in foxes in Romania. Lately witnessing a resurgence of rabies in different regions of the world due to maintaining the virus in wild animal population. Romania has historically been one of the countries most cases of rabies in Europe. Since 1950, as a result of measures implemented, including immunoprophylaxis, rabies has become mostly confined to wild carnivores and especially to the fox(1, 5).

Key words: rabies, fox, surveillance, control, eradication

ASPERGILLUS PNEUMONIA IN A BURMESE CAT – CASE STUDY

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Summary

Aspergillus fumigatus is responsible for the majority of cases of aspergillosis in animals and birds. This organism causes acute respiratory infection when susceptible animals are exposed to heavy concentrations of airborne conidia. Although pulmonary aspergillosis is not common in domestic animals, cases have been reported in several species. This report describes a case of aspergillus pneumonia in a cat of three years from the Burmese breed. To confirm the disease are important, medical history, results of clinical examination, laboratory examination and culture. A certain difficulty in diagnosis is given by way of collection of biological samples, represented by lung lavage. Growing on Sabouraud medium, is a quick and easy isolation of *Aspergillus* species.

Key words: aspergillosis, pneumonia, cats

**CLINICAL PREVALENCE OF *STREPTOCOCCUS CANIS* IN CATS,
WITH OTITIS EXTERNA IN WESTERN REGION OF ROMANIA**

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Summary

To determine the prevalence of *Streptococcus canis* in cats with otitis externa, a total of 24 swabs were examined bacteriologically in the period from January – March 2011. Five isolates obtained from external auditory channel, the cat with otitis externa, were further characterized for their phenotypic properties. The most frequently isolated biotype produced phosphatase, leucine amidopeptidase, arginine dihydrolase, alpha-D and beta-D-galactosidase and fermented lactose and ribose. Frequency of *S. canis* strains were isolated from otitis externa in cats was 20.83% (5 tulpini/24 probe).

Key words: cats, *Streptococcus canis*, prevalence, otitis externa