Research Papers

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COMPARISON OF TUBERCULIN SKIN TEST AND LATERAL FLOW RAPID TEST FOR DETECTION OF BOVINE TUBERCULOSIS IN DAIRY CATTLE

Nasr E.A.*, Marwah M.*, ** Lilian F.S. MelikaAbeer A. Tammam, ****Seham F. Gorge.**

*Department of Bacterial Diagnostic Products (Tuberculosis), Veterinary Serum and Vaccine Research Institute, Abassia, Cairo, Egypt.
**Parasitological Vaccine Research Department, Veterinary Serum and Vaccine Research Institute, Abassia, Cairo, Egypt.
***Department of Rinder Pest, Veterinary Serum and Vaccine Research Institute, Abassia, Cairo, Egypt.
**** Animal Healthy InstituteBeheira Branch

ABSTRACT

Tuberculosis is the most important zoonotic bacterial disease that is hazardous to both man and animals. A huge economic loss which could be direct or indirect is associated with the disease, so rapid diagnostic tests for tuberculosis are needed to facilitate early detection and prevention of disease transmission. The aim of this work is the detection of bovine tuberculosis by application of different serological tests. Tuberculin skin test applied on 1900 cattle, only 50 (2.6%) showed positive results, and then slaughtered. Forty five (90%) of slaughtered animals showed visible lesions on post mortem examination, while the other five (10%) showed non visible lesions. The bacteriological examination of the 50 samples reveled ***Mycobacterium bovis*** form 40 processed samples (80%). Results of Anigen Rapid Bovine TB Ab testandELISA test had detected 42% and 48% of tuberculin positive cattlerespectively. It was concluded that the Anigen Rapid Bovine TB Ab kit test is rapid, safe, simple and easy to perform and provide yes or no results within 15 to 20 minutes but it is not efficient for detection of bovine tuberculosis in cattle and could be useful as a complementary for tuberculin test.

Key words**:** Anigen, Rapid Bovine TB Kit , bovine tuberculosis , ELISA, ***M. bovis.***

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EFFECT OF TRANSPORTATION STRESS ON SOME BEHAVIORAL PATTERNS AND HEMATOLOGICAL PARAMETERS OF DROMEDARY CAMEL (CAMELUS DROMEDARIUS)

H.H. Emeash[*1]; A.S. Mostafaa[2]; Fatma Khalil [1]; M. Z.Elhussiny [3]

[1] Department of Animal Hygiene, Management and Zoonosis, Faculty of Veterinary Medicine, Beni-Suef University, Beni-Suef 62515, Egypt.
[2] Department of Behavior, Management and Development of Animal Wealth, Faculty of Veterinary Medicine, Minia University, Egypt.
[3] Department of Animal Behavior and Management, Faculty of Veterinary Medicine, Aswan University, Aswan, Egypt.

ABSTRACT

Transportation is often considered as one of the main causes of stress raising considerable interest, both in economic and animal welfare fields. The dromedary camel is the most important domestic animals in the arid and semiarid regions as it is equipped to produce high quality food. Consequently, stressful transportation of camel may cause severe economic losses. Thus, this study was designated to evaluate behavioral and physiological responses of Dromedary Camel *(Camelus dromedarius)* to transportation as early indicators of stress. Camels were imported from Dongla quarantine in Sudan to Arqeen (at the borders between Egypt and Sudan) walking about 450 km. Then after, the camels moved from Arqeen to Abo simple quarantine. According to method of transportation camels were divided into 3 groups; control group 1(camels were not transported), group 2(camels transported by trucks that travel about 150 km, taking about 2-3 h) and group 3 (camels transported from Arqeem to Abo simble quarantine by walking about 90 km for 24 h). In Abo simble quarantine, 30 healthy males (5-7 years and 300-400 kg bwt) were selected for each group, three replicates for each . Some behaviour of maintance of study camels' were recorded (Ingetsive as well as feeding and rumination, comfort behaviour as recumbancy , standing ,body care; rubbing, scratching and nipping) were analyzed by direct personal observation for 120 min (60 min in the morning and 60 min afternoon) with 5 min interval. In additions, Blood samples were collected immediately after camel's arrival (0 h) and at 18 h

after arrival for hematological examination (PCV, Total RBCS, total WBCS). As a result, frequency of feeding and rumination, scratching and standing were significantly decreased in transported camels (truck and walk) compared to control. On contrary, recumbency frequency was decreased in comparison to control. Furthermore, PCV was significantly increased and total RBSs count was decreased in group 1 at 0 and 18 h compared to control. In addition, leukopenia was detected in group 2 at both 0 and 18 h. Therefore, our study suggests transportation induced marked stress on camels that may lead to economic losses.

Key words: Dromedary Camel , quarantine , stress , Transportation.

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GROSS ANATOMICAL STUDY OF THE MALE ACCESSORY GENITAL GLANDS IN THE ADULT RABBIT WITH SPECIAL REFERENCES ON THEIR VASCULARIZATION

Ragab S.A; Meray N.R.; Khalifa E.F.; Elkarmoty A.F. and Mahar M.

Department of Anatomy and Embryology, Faculty of Veterinary Medicine, Cairo University

ABSTRACT

The gross anatomy of the male accessory genital glands of the healthy adult rabbit and their vascularization were investigated using thirty five male specimens. The morphological study was carried on six male rabbits and showed that the male genital glands constituted of: the ampulla of ductus deferens, the vesicular gland, the prostate gland and the bulbo-urethral gland. These regions were defined through shape and relation to adjacent organs. The vascularization of the male genital glands in rabbit was applied on twenty nine adult ones. The arterial supply was oriented by the urogenital artery or the prostatic artery from internal pudendal artery and the ventral branch as well as the caudal branch of vesicular gland from the umbilical artery. The venous drainage was achieved by internal pudendal vein which drained into the caudal vena cava.

Key word: Rabbit, Gross anatomy, Vascularization

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HEMATOLOGICAL AND SERUM BIOCHEMICAL STUDIES ON EXPERIMENTAL INFECTION WITH EIMERIA STIEDAE IN RABBITS

Heba Mahmoud Ramadan[1*], Mohamed Ibrahim Dessoky [2], Nadia Mohammed Talaat Aboel Ezz[3]

[1] Military Veterinary Hospital, Cairo, Egypt.*hobezemo2005@hotmail.com
[2] Department of Clinical Pathology,
Faculty of Veterinary Medicine, Cairo University, Giza, Egypt.
[3]Department of parasitology, National research center

ABSTRACT

Coccidiosis is primarily a disease of young rabbits, infected adults are carriers. The aim of this study was to investigate hematology and serum biochemistry of hepatic coccidiosis induced by Eimeria stiedae in rabbits. This study was applied on (40) apparently healthy rabbits were divided into two groups. The first group was designated as healthy control group. Rabbits of second group were infected with 30,000 sporulated oocysts of Eimeria stiedae/ml. Complete blood picture, serum biochemistry (total serum protein, albumin, ALT, GGT, AP) were investigated. Fecal samples were collected from infected rabbits for oocysts count. Shedding of oocysts began from day 16. The highest opg value was at day 22(530,000 opg) and the lowest value was at day 47 (50 opg) and disappeared from day 48.Investigated red cell indices indicated presence of mild macrocytic hypochromic anemia. Granulocytes, lymphocytes counts were slight elevated at day 6, 21, and 42 of infection, and significant decreased at day 28. Monocytes count was elevated at day 10, 16, 21, 42, and 50 of infection. ALT, GGT were elevated gradually from day 6 to day 35 then gradually decreased to the end of the experiment (day 50). Activity of ALT enzyme increased from day 10. Activity of AP enzyme revealed marked variation in control and infected animals. The liver enzyme ALT can be used as a diagnostic and prognostic indicator for hepatic coccidiosis before shedding oocysts.

Key words: Rabbits, hepatic coccidiosis, Eimeria stiedae, liver enzyme.

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HEMATOLOGY AND SERUM BIOCHEMISTRY OF DOGS SUFFERING FROM HEMORRHAGIC GASTROENTERITIS WITH SPECIAL REFERENCE TO VITAMIN C SUPPLEMENTATION IN TREATMENT REGIMEN

Wedad Ahmed Abd Allah[1*], Taher Ahmad Baraka[2], Noha Yousef Salem[2]

[1] Military Veterinary Hospital, Cairo, Egypt.*vetdado@yahoo.com
[2] Department of Internal Medicine and Infectious Diseases,
Faculty of Veterinary Medicine, Cairo University, Giza, Egypt.

ABSTRACT

Hemorrhagic gastroenteritis is one of most common problem in young to middle aged dogs. The aim of this study was to investigate hematology and serum biochemistry of hemorrhagic gastroenteritis affected dogs, and therapeutic evaluation of vitamin C in treatment regimen. This study was applied on (33) dogs included (19) healthy as control group and (14) dogs affected with hemorrhagic gastroenteritis as diseased group. Diseased group was divided into two groups; group 1, received vitamin C with the traditional treatment; group 2, received the traditional treatment only. All dogs exposed to complete comprehensive clinical and physical examination, complete blood picture, serum biochemistry of protein profile (total protein, albumin, globulin, and A/G ratio) and lipid profile (cholesterol, triglycerides, HDL, LDL, and VLDL). Leucopenia, lymphopenia, and increase in lipid profile were the most observed alterations in diseased cases. After treatment with vitamin C there were increase in WBCs, decrease in triglycerides, and VLDL. Vitamin C administration helps in relief of clinical signs in shorter duration than standard treatment alone.

Key words: Dogs, hemorrhagic gastroenteritis, lipid profile, vitamin C.

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ENHANCING THE BEI- INACTIVATION RATE OF EQUINE HERPESVIRUS-1BY FORMALDEHYDE.

Fatma F.Warda , Maha , R and Ibrahim M. ,M.

Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo
E –mail: Svri @ idsc.gov.eg

ABSTRACT

In order to control Equine herpes viral disease (EHV-1), completely inactivated vaccines was produce based on the use of effective in activator and good adjuvant, so this study was carried out to determine the optimal inactivation protocol for the locally isolated strain of(EHV-1) by using alternative protocol(combination of different concentration from Binary ethyeneimine (BEI) and formalin) in comparison to the usual(EHV-1) inactivation protocol with) BEI (0.008M) alone giving complete inactivation within 18-24hr(time –consume), which revealed inactivation rate 0.57 $\log_{10}$ $TCID_{50}$/2hr while the alternative protocol at concentration of (0.005/M BEI -0.0006% formalin) and (0.004/M BEI -0.001% formalin.Giving complete inactivation in 8hr (time saved) with inactivation rate 2$\log_{10}$$TICD_{50}$/2hr Titration and residual virus infectivity were carried out on chorioallantoic membrane of specific pathogen free- embryonated chicken eggs(SPF-ECE). From these three different concentration of different compared inactivated viral fluid Alhydragel vaccines were prepared tested for safety, purity and potency in mice as Murine model and measure immunogensity by using ELISA test. Finally we concluded that the best, safe and highest potent immunogenic with shorter inactivation time was the alternative protocol of (0.005\M BEI -0.0006% formalin).

Key words : EHV-1 , Inactivation , BEI , formalin , vaccine , immunogenicity- Mice

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ASSESSMENT OF THE PESTE DES PETITS RUMINANTS (PPR) ATTENUATED VIRUS PRODUCED BY INOCULATING VERO CELL LINE AT DIFFERENT STAGES OF CELL GROWTH

El-Dakhly A.T*; Youssef M. M[1]; AbeerA.Tammam[*]; and Namaa A. Mohamed[**]

*Rinder Pest Vaccine Research Department, Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo, Egypt,
**Pox Vaccines Research Department, Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo, Egypt
***Corresponding author:** El-Dakhly A.T, Mobile: +201009191527
Email: ashraf.eldakhly@yahoo.com

ABSTRACT

This work presents cultural characterization of Peste Des Petites Ruminants (PPR) virus in VERO-culture. The VERO cells are currently considered as an acceptable cell substrate to produce a wide range of viruses. This study evaluates the best time for inoculation of PPR virus on VERO cell cultures; the study proved that the optimum time was 24 hours after subculture of VERO cell line using MOI 2: 1. It was also found that the best time of harvstation of virus fluid of PPR was 9th day post inoculation to reach the best titre 6 log10 TCID50 /ml.

Keywords: VERO cell - peste des petits ruminants - cell growth.

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BEHAVIORAL ALTERATIONS INDUCED BY *TOXOPLAMA GONDII* DURING DIFFERENT STAGES OF INFECTION IN MICE

Motamed Elsayed Mahmoud [a,b*], Yoshifumi Nishikawa [b]

[a] Department of Animal Behavior and Husbandry, Faculty of Veterinary Medicine, Sohag University, Sohag, 82524, Egypt.
[b] National Research Center for Protozoan Diseases, Host Defense Research Unit, Obihiro University of Agriculture and Veterinary Medicine, Inada-cho, Obihiro, Hokkaido 080-8555, Japan. Email: nisikawa@obihiro.ac.jp
Corresponding authors: Motamed Elsayed Mahmoud, Ph.D., Department of Animal Behavior and Husbandry, Faculty of Veterinary Medicine, Sohag University, 82524. Egypt. Email: motamed71111@gmail.com, Fax: +20935470000 (extension: 2202).

ABSTRACT

Acute, chronic and reactivation of *Toxoplasma gondii (T. gondii)* infection is approximately found in 30-60% of population world-wide. *T. gondii* is a pathogen relevant to psychiatric disorders. We have recently found that reactivation of chronic *T. gondii* induced depressive-like behavior in mice. In the present study, we aimed to illustrated the behavioral alterations in mice during acute, chronic and after reactivation of chronic *T. gondii*. Behavioral battery included sucrose preference and forced swim, and fear conditioning tests, and measurement of locomotor activity following *T. gondii* infection in mice. First, we prepared an ethogram and confirmed that specific pathogen free-BALB/c mice exhibited sickness-like behaviors during acute infection. In addition, reduced sucrose preference and increased immobility in forced swim test (putative indicators to anhedonic and despair-like behaviors respectively) were exhibited in acute phase. While in chronic stage such symptoms were not exhibited at all. In turn, relapse of depressive- and some of sickness-like symptoms noticed after

reactivation of chronic *T. gondii* infection. Interestingly, increased freezing time in fear conditioning was displayed during acute and reactivated *T. gondii* but not during chronic infection. Further, despite the well-known contribution of neurotransmitters; serotonin and dopamine in major depressive disorder, low levels of these neurotransmitters were observed in the brain not only in acute but also during chronic infection. Without interpolation of these symptoms to human psychiatric disorders, collectively, our results demonstrated the crucial changes induced by acute and reactivated *T. gondii* in modifying the behavior of mice.

Key words: Depressive-and sickness-like behaviors, Mice, *Toxoplasma gondii* infection.

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EFFECT OF SOME ANTIBABESIAL DRUGS ON THE IMMUNE RESPONSE OF CATTLE VACCINATED WITH INACTIVATED BOVINE EPHEMERAL VACCINE

Lilian,F.S. Melika; Soliman A.F. and Shendy, M.B.

Veterinary Serum and Vaccine Research Institute, Abbasia**,** Cairo
P.O.Box:131- Fax: (202) 23428321

ABSTRACT

This work spot the light on the effect of bovine babesiosis treatment on the immune response of cattle to the inactivated bovine ephemeral fever vaccine using imidocarb dipropionate (imizol) and diminazene aceturate (berenil). Such investigation was carried out through mutual injection of the used drugs with animal vaccination in 8 groups (4calves/group) of native calves of about 6-8 months age included control vaccinated non-treated animals and healthy non-vaccinated and nontreated animals. The obtained results revealed that diminazene aceturate depressed the immune response of vaccinated calves showing lower levels of BEF serum neutralizing antibody titer (16) than that induced by using imidocarb dipropionate which enhanced the immune response of vaccinated calves showing higher levels of antibodies (128) than those in the previous treatment and in control non-treated vaccinated calves (64). So, it could be recommended to use imidocarb for treatment of bovine babesiosis either simultaneously or post vaccination with the inactivated BEF vaccine providing enhanced immune response. Morever; imidocarb could be considered as immune stimulant agent to improve the immune response of calves to other vaccines.

Key words: babesiosis, imidocarb, berenil, immune response, bovine ephemeral fever vaccine

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EFFICACY OF AN EXPERIMENTAL E.COLI INACTIVATED VACCINE IN TURKEY POULTS

***Gina,M.Mohammed,*Shell,W.S;*Sayed,M.L;**Ibrahim,H.M and *Ghada M. El-Sadek**

*Central laboratory for evaluation veterinary biologics, Abbassia, Cairo, Egypt.
**Veterinary Serum and Vaccine Research Institute, Abbassia, Cairo, Egypt

ABSTRACT

E. coli infections are responsible for great economic losses in the poultry industry worldwide, bringing serious threat to the turkey industry. The present investigation aimed to prepare a potent vaccine from *E. coli* serogroups O1 and O78 to control colibacillosis in turkey. One hundred commercial 14-day old turkey poults were used and divided into three group , first group vaccinated twice with 3 weeks interval by prepared inactivated E.coli vaccine adjuvanted with aluminum hydroxyl gel , second group vaccinated twice with 3 weeks interval by prepared inactivated E.coli vaccine adjuvanted with mentonide oil 71 and third group for control negative then measured immune response with MAT, ELISAand challenge test. We found that the protection rate of inactivated vaccine with aluminum hydroxyl gel was 80%, the protection rate in *E.coli* inactivated vaccine with mentonide 71 was 84% and the protection rate was 28% among the unvaccinated turkey group.

Keywords: Inactivated vaccine, E.coli, ELISA, MAT

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ROLE OF LIPOIC ACID (THIOCTIC ACID) IN IMPROVING VITALITY OF DIFFERENT TISSUE CULTURE CELLS.

Maha, R. and Hussine , A.H.M.

Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo, Postal No: 11381 P.O. Box 131.
E –mail: Svri @ idsc.gov.eg

ABSTRACT

Most virus vaccines are propagated on different tissue culture cell lines ,however various cell line are exposed to some degenerative changes manifested by cytoplasmic granulation and picknotic nuclei , such alteration may be ended with cell apoptosis , especially when keeping these cell lines for relatively long time during virus propagation , the adverse action are induce by cell linesas a result of liberation of waste product in addition to free radical that is affect cell line performance and make them not illegible produce high quality vaccine our experiment proved that addition of lipoic acid (LA) with its sodium salt in ratio of 0.1ml mole(mM) in the growth media has improved they physiological activities of different cell line namely MDBK , VERO and BHK21 such cells remained normal for relative longer time comparing with the cell culture without adding lipoic acid (LA) , the improvement of upper mention cell line was ascribed to the addition of lipoic acid (LA) dihydrolipoic acid, (DHLA) as protein free media supplement . oflipoic acid (LA)and its dihydrolipoic acid, (DHLA) , are involved in several aspects of cell energy and amino acid metabolism, as well as in defense against oxidative stress and apoptosis. Bpth 2 component (LA and DHLA) initiated the production of Glutathione which antagonizes the oxidative of free radicals on cells that harmfully affects cell metabolism .our study could be extend to involve more investigation covering the other uses of (LA) especially in its nano form.

Key words : cell line , apoptosis , lipoic acid (LA) ,dihydrolipoic acid, (DHLA), MDBK , Vero , BHK21.

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THE USE OF MONTANIDE PET GEL-A TO IMPROVE THE INACTIVATED CELL CULTURE RABIES VACCINE

Edries, S.M.

Veterinary Serum and Vaccine Research Institute; Abassia, Cairo P.O.Box:131- Fax: (202) 23428321 svri@idsc.gov.eg

ABSTRACT

Pet animal vaccines play an important role in industry of animal vaccines where nowadays dogs are not only lovable animals but they play an important role for guarding and overcome on terrorism, also it becomes great economic projects. It is well known that these vaccines protect animals; and accordingly humans against infection with zoonotic diseases especially rabies which is the most fatal one. So the main goal now is to improve the present produced inactivated cell culture rabies vaccine to be highly immunogenic using Montanide pet gel-A instead of the aluminum hydroxide gel. Different percentages (2.5 /5.0 /7.5&10 %) of such adjuvant is to be added to the inactivated cell culture rabies virus suspension (ERA strain) revealed that the best percentage is 10% yielding the highest virus adsorption. Vaccination of different groups of puppies (aged 3-6 months) with different doses of the novel prepared vaccine revealed that all of them were safe inducing no post vaccination reactions. It was found that the most suitable dose was 1ml/animal injected subcutaneously where vaccinated puppies exhibited higher levels of rabies serum neutralizing antibody titer (2.3 IU/ML.) than those vaccinated with lower doses (0.25 and 0.50ml) and higher than puppies vaccinated with the traditional produced vaccine using a dose of 2ml/animal (1.6 IU/ML.).

So, it could be recommended to use Montanide pet gel-A instead of aluminum hydroxide gel where it reduced the dose volume; the thing which is preferable by pet owners; and raises the level of inducedimmunity suggesting longer duration of immunity.

Key words: Rabies, Zoonetic diseases, Montanide pet gel-A .

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EFFECTS OF TIMED ARTIFICIAL INSEMINATION FOLLOWING OESTRUS SYNCHRONIZATION ON PREGNANCY RATE OF DAIRY CATTLE IN BAHRI UNIVERSITY DAIRY FARM

Mohammed R.M[1], Abdelwahid H.H.[2], and *Abdallah* A. A.[3]

[(1)]Department of Diary production, College of Animal Production, University of Bahri, Sudan

rajaammm3@gmail.com

Tel: 00249 0122527497 – 00249 918078054

[(2)]Department of Animal breeding and Genetics, College of Animal Production, University of Bahri, Sudan

hhago2000@yahoo.com

[(3)] College of Animal Production, University of Bahri**, Sudan**

ABSTRACT

The objectives of this study were to evaluate oestrus response and pregnancy rate resulting from timed insemination following oestrus synchronization in Bahri University dairy farm. Fifteen hybrid dairy cows were used in this experiment. Oestrus synchronization was carried out using prostaglandin follicle hormone (PgF2) and gonadotropin releasing hormone (GnRH). Each cow was given2.5ml of GnRH and PgF2 intramuscular injection, then artificially inseminated after 18 hours from the last injection of GnRH. The percentages of oestrus response following the synchronization was 100%. The observation of pregnant cows after timed artificial insemination was only four cows represented pregnancy rate of 26.6%.

Keywords: Pregnancy rate (PR), heat detection rate (HDR), service, fertility rate.

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CLINICAL, BIOCHEMICAL AND EPIDEMIOLOGICAL STUDIES ON PNEUMONIC MYCOPLASMOSIS IN SHEEP AND GOATS IN SAUDI ARABIA

Al-Mujalli, AM., El-Deeb, WM, Aljalli EM, Elmoslemany, A

Department of Clinical studies, College of Veterinary Medicine and Animal Resources, King Faisal University, Al-Ahsa, Saudi Arabia

ABSTRACT

Mycoplasma infections cause indirect economic losses because of emaciation, delayed market weight and infertility, due to the subacute or chronic pneumonia in small ruminants. A major health problem of small ruminants is pneumonia/pleuro-pneumonia, which may be caused by *Mycoplasma* species alone or in conjunction with other microbes. The main objectives of the current study were to investigate pneumonic mycoplasmosis in small ruminants with regards to microorganism, prevalence and epidemiology in Eastern region of the Kingdom. In the present study, fifteen flocks from Al Ahasa, Dammam and Hafr Albaten areas were studied. Animals examined were adult male and females with history and clinical signs of respiratory infection mainly nasal discharge, coughing, anorexia and deaths. The herds examined were reared in desert in confined fences. The number of animals in each herd were not less than hundred head. Two hundred fifty Heparinized and coagulated blood samples and two hundred nasal swabs were collected from suspected mycoplsma infected animals, in addition to that, fifty blood samples from clinically healthy animals were obtained and served as control. After necropsy, pleural fluids (n=50), bronchoalveolar washings (n=50), and representative tissues samples from lungs, broncho-pulmonary lymph nodes, mediastinal lymph, liver, heart were collected. Blood hematological and cellular, serological, bacteriological, epidemiological and histo-pathological examinations of samples were carried out on all animals under investigations. Clinical signs of examined cases revealed nasal discharge coughing and sudden death, with approximately 27% of cases showed, nasal discharge, cough, and death. Eighty-one percentage of examined flocks reported

presence of respiratory signs, 41% indicated that their neighboring flocks had suffered from CCPP. Additionally, 81 % of flocks reported using mycoplasma vaccine, and 59 % reported previous treatment of mycoplasma. Overall prevalence ranged from 1.7- 12.5 % with mean of 5.6 %. Highest prevalence occurred during March (6.7%), whereas lowest prevalence occurred during May (4.6%). The hematological picture of diseased cases showed decreased levels of Hb content and RBCs count with higher levels of WBCs count and neutrophils percentage when compared with control healthy animals.

Key words: sheep, goat, mycoplasma, pneumonia, prevalence

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EFFECT OF FEED SUPPLEMENTED WITH DIFFERENT LEVELS OF XYLAM ENZYME ON PERFORMANCE,CARCASS CHARACTERISTICS AND MEAT QUALITY OF BROILER CHICKS

Abdelbasit B. Habib[*1] ,AbdelrahimA.Mohamed[2],Ahmed M.Eltrifi[3],EgbalS.Abushulukh[3] and AbubakerA.Abubaker[1]

(1) Department of poultry production, College of Animal Production, University of Bahri, Sudan
(2) Department of Animal Nutrition, College of Animal Production, University of Bahri, Sudan
(3) Department of Meat production, College of Animal Production, University of Bahri, Sudan
*Corresponding author E- mail: abdelbasitbasheer@yahoo.com
(+249) 123042373 - (+249) 912142373)

ABSTRACT

This experiment was carried out to identify the impact of inclusion different levels of commercial xylam enzyme (zero, 0.5kg, 0.75kg, and 1 kg) inthe feed on performance, carcass characteristics and meat quality of broiler chicks.300 unsexed one- day old (Ross 308) broiler chicks were used in the experiment. The chicks were randomly distributed to four dietary treatments and with each carrying 75 experimental birds. The treatments were subdivided into three replicates; each was given 25 experimental birds. All chicks were fed experimental diets to for five weeks which formulated according to (NRC) to meet the nutrient requirements.The results indicated that addition of xylam enzyme to diet improved significantly ($p<0.05$) the feed intake, body weight gain and feed conversion ratio values of broiler chicks throughout the experimental period. The results indicated that there were no significant differences between all treatment groups in percentages of commercial carcass cuts (breast, drumstick ,thigh and wing) and chemical composition of breast meat (moisture, fat, and ash), results also showed that no significant differences observedbetween all treatment groups in some physical properties of broiler breast meat (PH and WHC).It is concluded that adding (1 kg) of commercial xylam enzyme in broiler chicks diets resulted in economic benefits.

Keywords: Broilerchicks, Xylam enzyme, Performance

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MANAGEMENT AND MILK POTENTIAL OF SELECTED SUDAN DESERT SHEEP ECOTYPES IN FOUR STATES OF CENTRAL SUDAN

Subhi. Rasha.S , Ahmed, F. A and Mansour. M. E

Animal Production Research Center, Bahri City, Sudan

ABSTRACT

This study was conducted for some production characteristics and management systems of Sudan Desert sheep under nomadic husbandry System in four states in the Sudan (Gezira, Sinnar, Blue Nile, Northof Kordofan) to investigate the potentialities of Sudanese desert sheep as milk producers. The study (Survey) was conducted in the four States during 2010, for Shogur, Dubasi, Watish, Kabashi and Hamari (Sudan desert sheep Ecotypes) in a structured questionnaires. Mature small- holders have the highest percentage for rearing sheep, most of them were illiterate (53%) and 93% in permanent movement. The 78% of sheep owners did not have pens, while 22% of the had pens. The majority (52%) of the flock size range between 151 to above 200 heads.

Only 32%, 3%, 25% and 2% of ewes were milked in the Gezira, Sinnar, Blue Nile and North of Kordofan States respectively. The lactation length of four months for ewes in four states. The study revealed that 77% owners recorded 0.450-1.350 Kg milk/ day /head, while 62% of owners reported milking when needed, 83% of owners reported they feed supplementation to their milking ewes in dry season. (31%) of the owners processed their milk, (28%) of those owners process it as fermented milk (main food), while 6% of those owners process it as

Ghee (Samn) and Butter (Zibda). 12% of owners reported profit from selling sheep's milk in the markets. All owners depend on grazing grasses and agricultural by-products during the rainy and harvesting seasons. For the source of water in the four States, high percent of owners reported canals in Gezira State, barrels and tankers and hafir (water point) in Sinnar and Blue Nile States and water pump in North of Kordofan State.

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TRADITIONAL USES OF SUDANESE CAMEL FUR IN TRANSHUMANT SYSTEM

Egbal S. Abu shulukh[1]*, M.O.Eisa[2] and I.M.Fager [3]Nafisa M. Abakar[4]*

[1]Department of Meat Production, College of Animal Production, University of Bahri, Sudan; and [2] General Administration for Assessment and Accreditation, Omdurman Islamic University, Sudan; and [3]Department of Diary production, College of Animal Production, University of Bahri, Sudan

ABSTRACT

This research was carried out in Kordofanregion (western Sudan); it's inhabited by Kabbabish, Dar-Hamed and Hamar tribes who are traditional camel herders. The data for this study were collected in April to June2015; to evaluate the traditional uses and characteristic of camel fur in Sudan, the study included (products size / M^2,weight / kg,the time need/day and price/SDG). The survey of this study covered 100 samples from each area. The results showed that all nomads in three area uses Yarn, Tents, Shimla, Lebda and Atab (Garnish), the comparisons between characteristics of products observed that the overall mean of uses Tents were not significant, while overall mean of uses Shimla was significant only for the price, and Dar-Hamid scored high significantly different than others areas. The overall mean of uses Lebda was not significant between all areas, But the prices of the products were significantly different. The prices of products from Dar-Hamar were highest; and the prices of products from Dar-Hamid were lowest. The overall mean of uses Atab was not significantly different between three areas except in the Atabe price, Dar- El Kabbabish, which was reported high price, than others, no use of Blankets was reported.

Keywords: camel, fur, uses, characteristics, Kordofan

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PROTECTIVE EFFECT OF IVERMECTIN AND VITAMIN E AGAINST TESTICULAR TOXICITY IN RATS

Shalaby M. A.[1*], El-Banna H. A.[1], Shimaa R. Imam[1] and Reham M. Abd-Elsalam[2]

Pharmacology[1] and Pathology[2] Departments, Faculty of Veterinary medicine, Cairo University, Giza P.O. Box 12211, Egypt.

ABSTRACT

The protective effect of ivermectin (IVM) and vitamin E (Vit. E) alone and in combination against testicular toxicity induced by sodium valproate (SVP) in rats was investigated. Thirty five sexually mature Sprague Dawley male rats were randomized into 7 equal groups. Group 1 was kept used as negative control and the other 6 groups were orally administered SVP (500 mg/kg) daily during the last week of experiment period (8 weeks) to induce testicular toxicity. Group 2 was positive control and groups 3,4,5,6 and 7 were orally pretreated with therapeutic or double therapeutic dose of IVM or Vit. E alone and concurrently for 8 weeks, respectively. Blood samples were withdrawn for determination of testosterone, FSH and LH serum levels. Semen samples were collected from cuda epididymis for semen analysis. Rats were sacrificed and sexual organs were removed and weighed. Histopathology of testes and superoxide dismutase and catalase antioxidant enzymes activity in testicular tissue were also performed. The results denoted that oral pretreatment with IVM concomitantly with Vit. E increased the relative weight of testes and sperm motility, count and viability in SVP-intoxicated rats. There were also significant increases in serum testosterone and FSH levels and testicular antioxidant enzymes activity associated with amelioration of degenerative changes in the testis. In conclusion, oral pretreatment with IVM and Vit. E exerts protective and antioxidant effects against testicular toxicity in rats. Further studies are needed to explore the reversibility and mechanisms of the protective action ofivermectin on male fertility and spermatogenesis.

Keywords: ⁎Ivermectin ⁎Sodium valproate ⁎Testis ⁎Sperm ⁎Antioxidant ⁎Histopathology

Invited Lectures

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Continuous Evolution Of Respiratory Viruses In Mixed Infections In Chickens Demonstrating Mortalities Strike The Poultry Industry In Egypt

By

Hussein Aly Hussein Ahmed

Department of Virology, Faculty of Veterinary Medicine, Cairo University, Giza-Egypt

ABSTRACT

Continuous evolution of H5N1 avian influenza viruses have been reported since 2008 till now. From the early months of 2011 frequent incidences of avian influenza H9N2 viruses infections have been observed in the commercial flocks in Egypt. Evolutionary analysis in 2014 revealed the continuous evolution of the H5N1 and H9N2 Egyptian strains where predominant strains belongs to the classical genetic cluster of the 2.2.1 H5N1 viruses (group V) and group B of G1 lineage H9N2 with divergence of at least four distinct genetic clusters were characterized . Interspecies transmission of avian influenza viruses from avian species to mammalian hosts does occur in some countries and becomes of public human interest. Possible reassortment may occur between these avian viruses and human H1&H3 influenza viruses leading to the emergence of new influenza viruses like those recently reported in China in which it was proved that the origin of human H7N9 AIV during 2013 was H9N2 AIV. On the other hand, the co-circulation of variant strains of Infectious bronchitis virus (IBV) with other respiratory viruses including NDV and AIVs caused a major problem in the Egyptian poultry industry. Phylogenetic analysis of chicken tracheal samples

collected in different Egyptian governorates during 2012 to 2014 proved the co-infection of IBV and other respiratory viruses (NDV, H5N1 and H9N2) with contentious evolution of variant 2 group of IBV of great similarity with Israeli IB strains (IS/1494/06- and IS/885/00). We reports the co-circulation of different IB strains in mixed infections with Chinese VIId of NDV and/or H5N1 and/or H9N2 viruses in broiler sectors demonstrating variable levels of mortalities reached in some flocks to 60%. The study highlight the importance of regular monitoring for evolution and epidemiology of field strains for detecting the emergence of new variant strains as well as evaluating the existing control strategies for such viruses.

Key words: Quasispecies; Serotypic; Genotypic; Co-circulation; Evolution.

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Are Disinfection Milestone Of Biosecurity Programe In Poultry Farms

By
Prof. Dr. Osama Zahran

Former Head of Veterinary Hygiene and Management, Faculty of Veterinary Medicine, Cairo University

ABSTRACT

Biosecurity Definition

Security from transmission of infectious diseases, parasites and pests among livestock, poultry. Wildlife and zoo animal

Sanitizing

Treatment of a clean surface with a chemical or physical agent (e.g., heat) to reduce microorganisms that cause disease and/or spoilage to levels considered safeLog reduction bacterial log 5 virus log 4 TB log 3 spore log 4Fungi log 4It should be noted that sanitizers do not destroy all pathogens. the population of the surviving bacteria may double every 20 minutes.. As a general rule, surfaces left for more than four hours must be sanitized again before production resumes.

Main Points:

Efficacy of Disinfection
Bio –Films films
Prevents Anti-Microbial Action•
Effective Cleaning Required•
BacterialAttachment•
Mass with Protective Film (Slime)
Traps Nutrientsand Bacteria
Prevents Anti-Microbial Action
Effective Cleaning Required
Application Methods

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Drug Interactions In Poultry Diseases Treatment

By
Prof. Dr. Amer Ramadan

Head of Dept. of Pharmacology, Faculty of Veterinary Medicine, Cairo University

ABSTRACT

Using two or more drugs in treating diseased poultry can lead to interactions between them that prescribed on a same birds. Some of these interactions are very harmful and may be have potential treats to poultry health that called antagonism. Different factors like number of prescribed drugs, drugs using without veterinarian advice and prescription and poor knowledge about drugs clinical pharmacology can increase antagonism effects of prescribed drugs. For investigating of this problem, poultry medicine prescriptions evaluated. Interactions of food and dietary supplements with drug metabolising cytochrome P450 enzymes were focused. Drug side effects and toxicity and often the drug efficacy are highly dependent on drug metabolism determining the activation and/or elimination of the respective compound. In poultry, cytochromes P450 are the most important drug metabolizing enzymes of the first phase of drug biotransformation. Their activity can vary due to inter-individual genetic differences, but it can be changed also by inhibition or induction of the enzymes by their substrates or other compounds that are not only drugs themselves and/or drugs taken concomitantly. When administered with different drugs, for examples, tiamulin has been shown to have an enhanced activity with the tetracyclines. There is a strong interaction, even death, with the ionophore anticoccidials monensin, narasin, and salinomycin when tiamulin is used at therapeutic levels, but this is dose-related

and low doses do not interact. It is thought to be caused by the preferential metabolism of tiamulin in the liver resulting in a buildup of the ionophore leading to clinical signs of over dosage. Tiamulin shows a milder interaction, such as temporary growth depression, with maduramicin and semduramicin but is compatible with lasalocid. Although tiamulin shows small benefits in improving performance in healthy animals, its main production benefit is in the face of infection, as a true therapeutic antibiotic. We will discuss all forms of pharmacodynamics and pharmacokinetics interactions. Moreover the tables of synergic and antagonistic of most important drugs used and the facts which lead to failure in the field therapy of poultry farms.

Vaccines, Vaccination, And Vaccines Failure

By

Samir M. Edris

Veterinary Serum and Vaccine Research Institute, Abbassia, Cairo, Egypt

ABSTRACT

Vaccination is an effective means to prevent and/or reduce the adverse effects of specific diseases that can cause problems in a poultry flock.

The main purpose of vaccination is to administer an optimum and safe amount of antigen to elicit immune response in the bird. These antibodies are identical to the antigen of vaccine.

What are we going to talk about?

Vaccines

Vaccination

Route of administration

Vaccines failure

Adverse Events

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Health And Care Of Arabian Horse: Five Senses

By

Prof. Dr. Youssry A.Radwan

Faculty of Veterinary Medicine Cairo University (Former)

WAHO – Associate Member

ABSTRACT

The **Arabian** or **Arab horse**is a breed of horse that originated on the Arabian Peninsula. With a distinctive head shape and high tail carriage, the Arabian is one of the most easily recognizable horse breeds in the world. Throughout history, Arabian horses have spread around the world and used to improve other breeds by adding speed, refinement, endurance, and strong bone. . Today, Arabian bloodlines are found in almost every modern breed of riding horse. The Arabian is a versatile They are one of the top ten most popular horse breeds in the world.

HORSES, like humans, have five basic senses: vision, audition (hearing), olfaction (smell), gustation (taste), and touch. The senses are an important part of what makes horses behaviorally distinct. They are the tools that a horse uses to interact with its environment. As we learn more about what motivates horses and how they perceive various stimuli, we can do a better job of working with them and shaping their behaviors.

A review of this information can be helpful in understanding Arabian horses (Five) senses .

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DETECTION AND CONTROL OF TUBERCULOSIS IN ANIMAL AND HUMAN

كشف ومقاومة مرض السل فى الانسان والحيوان

By

Prof. Dr. Essam Amin Nasr

Veterinary Serum and Vaccine Research Institute, Abassia, Cairo, Egypt.

ABSTRACT

مرض السل من الامراض الخطيرة منذ بدا الخليقة حيث تظهر اوراق البردى وجوده منذ الاف السنين ووجود اثار للدرن فى العمود الفقرى لبعض المؤمياوات و منها توت عنخ امون (اشهر ضحاياه) التى تثبت الاورق موته بالدرن وترجع تسميته بالسل الى الطبيب اليونانى القديم (ابقراط) فى القرن الرابع قبل الميلاد و هو يعنى باليونانية لانحلال و الاضمحلال اما تسميته بالدرن فهى حديثة لظهوره فى الفحص الباثولوجى على هيئة درنات فى مواضع الاصابة

ورغم أن السل بدأ ينحسر عالميا منذ عام1980 ويتوقع الخبراء عدم ظهوره في الدول الصناعية في عام ٢٠١٠إلا أن التقديرات الصحية تشير إلي أن المرض أخذ يزداد ما بين عامي ١٩٨٥و١٩٩١. وتدل الإحصائيات زيادتها ٢٠% في الولايات المتحدة الأمريكية. وخلال هذه الفترة وحتى عام ٢٠٠٠تعرض أكثر من ثلث سكان العالم ببكتريا السل. وهذا يعود إلى سببين رئيسيين:

أولا انتشار مرض الإيدز حديثا في أمريكا و أوروبا و إفريقيا وآسيا أدى إلى ارتفاع معدلات الإصابة بمرض السل في هؤلاء المرضى ذوي نقص المناعة وأصبح تلازم الحالتين أكثر انتشارا وخطورة في المجتمعات الغربية والدول النامية وخاصة بالنسبة للميكروب البقري.

ثانيا تطور العترات من الميكروب أدى إلى مقاومة أدوية مرض السل وبالتالي أصبح هذا الميكروب الجديد خطرا جديدا على الإنسان.

تصنف مصر حاليا : ضمن الدول متوسطة الاصابة بالسل. فى مصر حاليا (٢٠٠٦) : ٢٤% (٢٤حالة درن جديدة لكل مائة الف من تعداد السكان اى حوالى ١٦-١٧ الف مريض على مستوى الجمهورية نصفهم بالدرن الرئوى الايجابى البصاق ويمثلون الخطر الاكبر فى نشر العدوى بميكروب الدرن بين اخريين من المجتمع . فى عام ٢٠٠٦ ٤٧٤٥ حالة تم اكتشافه من ١٠,٤٠٠ مريض درن رئوى ايجابى البصاق و الباقى درن سلبى و درن خارج الرئة

Tuesday, 23 August, 2016

Opening Ceremony

(Library Congress Hall, Fac. Of Agriculture)

(Cairo University)

9.00-10.00	**Registration**	
10.0–10.30		
	Holy Quran	
	Prof.Dr. Rabie H. Fayed	**Conference Chairperson**
	Prof. Dr. Khaled El-Amry	**Vet. Syndicate Chairman**
	General Dr. Ibrahim Mahrous	**GOVS Chairman**
	Prof. Dr. Iman Bakr	**Dean of Cairo Vet. Med**
	Prof. Dr. Khaled Tawfik	**Animal Wealth Sector chairman**
10.30-11.0	**Tea Break**	
11.0 – 12.30	**Scientific Plenary**	