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" Abstracts "

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Field Evaluation of a Live Avian Metapneumovirus Vaccine in Broiler Farm

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Abstract:

Avian Metapneumovirus (AMPV) belonged to Paramixoviridae family has potential to produce acute contagious upper respiratory tract infections in fowl and turkey. Strategy of vaccination is one of the most important ways to control of AMPV disease. The objective of this study was evaluation of efficacy of a commercial live AMPV vaccine in a broiler farm. Vaccine was administrated by ocular rout at 14 days old of age in one broiler farm with a history of AMPV contamination. Zootechnical performance was evaluated and recorded until the end of rearing period (42 days of age) for test and negative control groups. Also in the days of 1, 14, 28 and 42, antibodies titers against AMPV and IBV were measured by ELISA and against ND and AI by HI methods. Statistical analyses by Mann-Whitney method showed that no significant differences ($P>0.05$) between two groups in zootechnical performance (mortality, body weight, FCR and EEF). Although these parameters were better in test group numerically. Also, no significant differences were found in antibody titers and CV against AMPV, ND, IBV and AI statistically ($P>0.05$) too. Vaccination against AMPV induces low humeral antibodies and so, serological tests cannot prove the vaccine efficacy. It should be considered that CMI immunity play a great roll in protection against AMPV and seronegative birds are not lack of immunity against AMPV.

Key words: Field evaluation, Metapneumovirus, Broiler, Vaccine.



Effect of silymarin in treatment of experimentally induced cataract in rabbit

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Abstract:

In cataract, less light passes through the lens as a result of blurring of the lens. The ability of lens adaptation reduces with time. As a result, the sensitivity of subtraction will go away. The aim of this study was to evaluate the effect of silymarin in treatment of cataract in rabbits. For this purpose, 12 rabbits were kept for two weeks prior to injection for assuring of being clinically healthy and their eyes were examined for being free of cataract and other disorders by means of ophthalmoscopy, slit lamp biomicroscopy and ultrasonography. Rapid cataract was induced by subcutaneous injection of 1 mg/kg BW of sodium selenite and repeated two more times with 2 days interval (3 mg/kg BW totally). All rabbits were examined by ophthalmoscopy and B-mode ultrasonography daily and slit lamp biomicroscopy with three days interval until cataract was developed at day 9. At this time, Linear Cortical and posterior subscapular cataract were observed in all rabbits. Rabbits were divided in experimental group that received 140 mg/kg BW of silymarin and control group without silymarin treatment at this day. Rabbits in both groups were examined by ophthalmoscopy and B-mode ultrasonography daily and slit lamp biomicroscopy with three days interval up to day 22. four rabbits of each group were euthanized at day 23 for histological examination of the lenses. Reduction in progression of cataract in silymarin treated rabbits were confirmed by slit lamp biomicroscopy and histology. B-mode ultrasonography was unable to show effect of silymarin in reduction of progression of cataract.

Key words: Rabbit, Cataract, silymarin



Prevalence of intestinal parasites in Turkeys from Gilan, Mazandarn and Golestan provinces 2015

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Abstract:

In developing countries there are traditional poultry production systems particularly for turkeys and led these bird to be exposed to several parasitic infections. The aim of the present study was to determine the parasites infecting turkeys in north of Iran in 2015. In this experiment the gastrointestinal tract of 45 turkeys were obtained from local traditional slaughterhouses in north of Iran. They were transferred to laboratory of parasitology, faculty of veterinary medicine, Islamic Azad University, Babol branch and then were dissected and their content was carefully screened and parasites were separated. Obtained nematodes were diagnosed after clarification with lactophenol. Cestodes also were stained by acetocarmine stain and species determined. Data obtained in this experiment showed that out of 45 turkeys 33 cases were infected with parasites and they were *Ascaridia galli* (22.6%), *Heterakis gallinarum* (48.68%), *Subulura brumpti* (26.31%) and *Raillietina tetragona* (2.30%). The high prevalence of parasitic infection in turkeys of north of Iran indicates inattention to hygiene is breeding of this bird and this will cause great economic losses to turkeys production industry. Therefore, by fighting against internal parasites and frequent monitoring of health status and teaching appropriate farming techniques can reduce parasitic infection in turkeys in north of Iran

Keywords: turkey, *Ascaridia galli*, *Heterakis gallinarum*, *Subulura brumpti*, *Raillietina tetragona*



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Study of Cryptosporidium infection in sheep in Saveh County

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Abstract:

Cryptosporidium is a parasite that can cause diarrhea in sheep. Disease caused by Cryptosporidium is a zoonotic disease. Given its importance, this study carried out to evaluate the Cryptosporidium infection rate in sheep in Noubaran district of Saveh County in 2014. In this cross-sectional study on 266 asymptomatic sheep, fecal samples were collected and transported to the laboratory and condensed. Then, samples were stained using modified Ziehl-Neelsen technique and examined by the use of an optical microscope. The prevalence of Cryptosporidium infection in studied samples was 10.5%. The results indicate that the rate of infection in rams was higher than ewes, the rate of infection in less than 1 year old sheep was higher than over 1 year old ones, and the rate of infection in herds with over 100 sheep was higher than herds with less than 100 sheep. Of course, no statistically significant relation was seen between factors such as age, gender and the number of herds with disease ($P>0.05$). This study showed that Cryptosporidium infection in sheep in this area was noticeable. Meanwhile, as this study has been done on animals without clinical signs, asymptomatic sheep could be a potential source to spread the infection to humans and ultimately the community.

Keywords: Cryptosporidium, Sheep, Saveh



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The Study of Incidence of Foot Pad Dermatitis in Broiler Chickens in Shahrekord

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Abstract:

Some studies represent that different factors play role in foot pad dermatitis but it seems the predisposing factor in this complication in wet litter that lead to maintain of this complication in poultry flock. This study was carried out in July to September of 2015, on 200000 broiler chickens (10 poultry flocks) that were suspected to foot pad dermatitis. Totally 200 samples (10 samples per 10000 chickens) were taken from foot pad lesions. The grading of lesions carried out based of severity of lesions. The mean of litter humidity and the mean of temperature in deep litter were 24.23 and 36.03 (respectively). The mean of foot pad dermatitis incidence in 10 flocks were 29.2%. In this experiment, in 200 bacterial cultures, the frequency of *Staphylococcus*, *Streptococcus*, *Escherichia coli* and coliforme infections were 60, 12.5, 16 and 11.5 percent (respectively). In this study, there was a significant relationship between humidity of litter and foot pad dermatitis ($P < 0.05$) but there was no significant correlation between temperature of litter and incidence of foot pad dermatitis. The results showed that different factors play role in the foot pad dermatitis incidence but the high humidity of litter, utilization of poor material for litter and deep litter can increase the prevalence of foot pad dermatitis.

Keywords: Foot pad dermatitis, Humidity of litter, broiler chicken.



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The effects of different levels of dried pomegranate pulp on performance and blood metabolites of aged laying hens

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Abstract:

This experiment was conducted to evaluate the effects of different levels of dried pomegranate pulp on performance, egg traits and blood metabolites of aged laying hens. In this experiment 144 Hy- line (W36) laying hens from 65-75 weeks of age in 4 treatments, 3 replicates and 12 hens in each replicate were used in a completely randomized design. Experimental groups included: 1) control group, 2) group with 1.5% pomegranate pulp, 3) group with 3% pomegranate pulp, and 4) group with 4.5% pomegranates pulp. Using pomegranate pulp had significant effects on performance, egg traits and blood parameters of laying hens ($P < 0.05$). The highest egg production percentage, the highest amounts of egg weight, egg mass and feed intake, the best feed conversion, and the lowest feed price for production per kilogram of egg were observed by using 3% of pomegranate pulp. Moreover, the highest egg specific gravity and the highest egg yolk color index, the highest levels of blood total protein, hematocrit and hemoglobin and the lowest level of blood serum uric acid were obtained by using 3% of pomegranate pulp. Using dried pomegranate pulp significantly decreased the egg yolk percentage. The overall results indicated that in aged laying hens, using 3% dried pomegranate pulp, improve their performance, egg traits, blood metabolites levels and decrease the feed price for production per kilogram of egg.

Keywords: *Blood metabolites, Dried pomegranate pulp, Egg production, Laying hens, Performance*



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Evaluation of the immunization effects of *Parascaris equorum* antigen by using of Counter immunoelectrophoresis method

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Abstract:

Parascaris equorum, is an important cosmopolitan nematode parasite of foals. The preparation of antigen is a basic practice to adjust a new sero-diagnostic method and also for produce vaccine. This study is aimed to evaluate the antigenic effects of *Parascaris* antigens by Counter immunoelectrophoresis (CIEP). In current work the intestine of the horses were longitudinally opened and the worm were collected. The genus and species of the worms were assessed by morphologic and morphometric techniques and stored in -20 °C until to use. Worms were crushed in PBS method and then sonicated. Antigens in different concentrations alone or with adjuvant were injected to the rabbit and the production of Antibodies was analyzed by CIEP method. The effect of antigen isolated from *Parascaris equorum* parasite in the production of antibodies was significantly in comparison with the negative control group. Also, indicated that production of antibody was increased by use of adjuvant with antigen. The productions of antibody in rabbits that receive antigen two times per a week were more than ones, which receive one time per a week. In conclusion Total antigens of *Parascaris equorum* parasite is an anti-genetically and stimulating agent. These antigens could be a candidate for provision diagnostic kits and also for produce vaccine.

Keywords: Immunogenicity, *Parascaris equorum*, Counter immunoelectrophoresis method