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Alterations of Serum Adenosine deaminase, Total Sialic acid, Malondialdehyde and Heat Shock Protein-27 in Sheep with Naturally Infected Liver *Cysticercus taeniaculis*

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Abstract:

The present study is involved investigation of total sialic acid (TSA), adenosine deaminase (ADA), malondialdehyde (MDA) and heat shock protein-27 (HSP-27) alterations in sheep during *Cysticercus taeniaculis* infection. For this purpose, 40 parasitized and 40 healthy sheep were selected based on observation of cystic form in liver and lack of blood parasite along with no cystic conformation in carcass respectively. Thereupon, ten milliliters of blood were collected via the jugular vein from all ones and transferred to EDTA-contained and non-EDTA tubes and after preparation of plasma and sera, all parameters were detected in groups. The results revealed a significant decrease (p<0.01) in TSA, ADA activity, albumin (Alb) and zinc (Zn²⁺) and a significant increase (p<0.01) in HSP-27, MDA, total bilirubin and unconjugated bilirubin in the infected group compared with healthy ones. The results indicate low levels of TSA and concurrent Alb decrease reveal liver damage in suffered sheep and MDA elevation demonstrates oxidative stress in infected group. In addition, HSP-27 enhancement may attribute to disease-induced stress conditions.

Keywords: total sialic acid, adenosine deaminase, malondialdehyde, heat shock protein-27, *Cysticercus taeniaculis*



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The Evaluation of Thyroid Gland Volume in the Foals by Ultrasonography

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Abstract:

In this study, it is tried to be a standard method for measuring the extent of the thyroid gland using ultrasonography to obtain. For this purpose, 14 Kurdish foals were selected which the age of those was between 2 and 90 days. In each of the foals, the size of the thyroid gland was measured with ultrasonographic method of three standardized axes and the volume of the thyroid gland using a formula that is defined for the oval was calculated (V_{SON}). Variability of sonographic measurements was dependent on side and axis, and ranged between 3.04-7.35 percent. The relationship between body weight and thyroid volume was significant. Generally, the thyroid size of the foals can be calculated by evaluating ultrasonography in three axes and comparing with predicted values based on body weight.

Key word: ultrasonography, foal, thyroid



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Fungal profile of the normal ocular microflora in Kurd horse

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Abstract:

Knowledge of resident fungal species on the normal ocular surface may influence selection of antifungal agents for the treatment of keratomycosis. In this study conjunctival fungal flora of 40 Kurd horses with normal eyes (n = 80) from Tabriz was identified using horses of both genders and aged 2-30 years old. Samples were taken from the lower conjunctival sac of both eyes with a dry cotton swab, seeded in Sabouraud's dextrose agar with chloramphenicol, and incubated at 25 °C for 21 days. Thirty-one (77.5%) horses and 49 (61.25%) eyes were culture positive. The most commonly isolated fungi were *Aspergillus* species (38.82 %). Other isolates in order of frequency were *Candida* spp, *Penicillium* spp, *Fusarium* spp, *Cladosporium* spp, *Mucor* spp, *Scopulariopsis* spp, *Pseudallescheria* sp, *Rhodotorula* sp, and *Trichoderma* sp. Yeast genera represented 18.82% of the total isolates. Sex of horse had significant effect on the frequency of certain fungi. Fungal contamination of eyes decreased with increase of horse age but correlation between them was not significant (r = -0.255; P = 0.064). The fungal species isolated are comparable with those reported for horses in other areas.

Key words: Fungal flora, Conjunctiva, Kurd horse, Aspergillus



The Effects using Canola Meal by Using two Levels of Vegetable Oil on Performance, Egg traits and Blood Biochemical Parameters of Laying Hens in Late Laying Period

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Abstract:

This experiment was conducted to evaluate the effects of using canola meal and two levels of vegetable oil on performance, egg traits and blood biochemical parameters of laying hens in late laying period. In this experiment 216 of Hi line (W36) laying hens from 62 to 74 weeks of age were used in a (3×2) factorial pattern with 3 level of canola meal (10.12%, 15.18% and 20.24%) and 2 level of vegetable oil (2% and 4%). This experiment was conducted in a completely randomized design with 6 groups and 3 replicates (with 12 hens in each replicate). The experimental groups included: 1) diet with 6.93% of soybean meal, 10.12% of canola meal and 2% of vegetable oil, 2) diet with 8.58% of soybean meal, 10.12% of canola meal and 4% of vegetable oil, 3) diet with 3.19% of soybean 15.18% of canola and 2% of vegetable oil, 4) diet with 3.19% of soybean meal, 15.18% of canola meal and 4% of vegetable oil, 5) diet without soybean meal, 20.24% of canola meal and 2% of vegetable oil, 6) diet without soybean meal, 20.24% of canola meal and 4% of vegetable oil. The results showed that the replacement of soybean meal by canola meal except of egg weight did not have any significantly effects on performance, egg traits and blood biochemical parameters of laying hens (P>0.05). The highest egg weight (63.62g) was observed by using 15.18% of canola meal.

Keywords: Canola meal, Egg traits, Laying hen, Soybean meal, performance



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Evaluation of Hematological and Biochemical Parameters in Infected Mehraban Sheep with Hydatid Cyst and Hepatitis Trematoda in Hamadan Industrial Slaughterhouse 2015

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Abstract:

Livestock is the most important source of human food chain and the main source of protein. Parasitic diseases cause economic damage and have adverse effects on the health of animals and humans. In this study, hematologic and biochemical parameters in hepatocyte infected sheep at Hamedan industrial slaughterhouse in 2015 were investigated. 220 Mehraban sheep breed by different ages were randomly collected from Hamedan slaughterhouses. The sheep were divided into four groups: 50 sheep infected with fasciolopsis (first infected group), 50 cases infected with hydatid cyst (second infected group), 20 cases infected with dicrucylose (three infected group) and 100 healthy sheep (control group). The sheep were examined for macroscopic examination for hydatid cyst and hepatic trematoda. The blood sample was taken from the jugular vein of sheep. Blood and serum samples were tested. SPSS software was used to analyze the data. The results showed that between the total number of red blood cells (RBC), mean corpuscular hemoglobin concentration (MCHC), hemoglobin (Hb), Mean Corpuscular Hemoglobin (MCH), mean cell volume (MCV), white blood cell (WBC)) And aspartate transferase (AST), alanine transferase (ALT), alkaline phosphatase (ALP) enzymes were significantly different in the infected groups than the healthy group (P < 0.05). The rate of blood and biochemical parameters in the prevention and diagnosis of hepatitis trematoda parasitic diseases and hydatid cyst in sheep can be justified.

Keywords: liver enzymes, Fasciola hepatica, Dicrocoelium dendriticum, hydatid cyst.



Pathological study of confiscated livers of slaughtered cattle in Urmia Abattoir

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Abstract:

In this study, livers of 1286 cattle are inspected grossly during five months according to their color and consistency changes with referring to Urmia Abattoir. Among the inspected carcasses, livers of 110 cattle had lesions. The collected tissues samples of confiscated livers are placed in 10% buffered formalin as a fixative solution and are sent to pathology laboratory for preparation of tissue microscopic sections with a thickness of 6 μ m. Pathologic sections are stained by haematoxylin and eosin (H&E) and periodic acid schiff (PAS) methods. The most pathologic changes in cattle livers are fatty change (33.6%), congestion (27.3%), hepatitis and cholangitis (25.5%), and bile duct hyperplasia (39.3%) respectively. Results of this survey showed that there was a significance relation (p<0.05) between liver congestion and cattle age. Also, the relation of age with bile duct hyperplasia, parenchymal or capsular fibrosis, hepatitis and cholangitis, and fascioliasis was significant (p<0.05) in cattle liver. Additionally, the relation of pathologic changes between cattle livers and their breeds was not significant (p>0.05).

Keywords: Pathology, Cattle liver, Urmia Abattoir.



The Teratogenic Effects Pesticide of Diazinon On the development of Balb/C Mouse Embryos 3Th to 6Th Days Of Pregnancy

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Abstract:

Diazinon is one of agricultural pesticides and organophosphate pesticide, because the chemical structure and the effects have been devastating on nervous, respiratory and digestive systems in recent years there have been studied. But It is effects on the embryo especially during pregnancy has not been reviewed. Therefore in study the teratogenic effects pesticide of Diazinon on the development of Balb/C mouse embryos 3Th to 6Th days of pregnancy. In this study 50 female Balb/C mice were randomly divided into 6 equal groups acontrol group(non-injection: 5mice) and witess(injection of saline:5mice) and 4 experimental groups(each group: 10 mice). A lethaldose LD50 was determined in condition of 11.09 ml/kg.bw in vivo and selected dose for injection 0.4 ml/kg.bw. Injection was done on the 3Th to 6Th days of pregnancy by enema Then the mouse were sacrificed on day 15 of pregnancy. For security of results above experiences was repeated three times.Data was checked with SPSS17 software and Duncan test subjest to (P<0.05) and (P<0.001). After a comparative study at this dose, has been observed a significant increse, Exohepatic: Exencephalus: Syndactyly: having a defect in dynamic organs (legs and hands), extensive bleeding in whole body and Exophthalmia were compared with control and witess groups. According to the findings, negative effects of diazinon use as pesticides in agricultural products, On the Mouse Embryos and It is recommended to protect the environment and human health, Especially pregnant women Use of nonchemical methods to control pests.

Keywords: Agricultural pesticides, Diazinon, Teratogen, Mouse embryo