The Effect of *In Ovo* Exposition to Ethanol Upon Osteogenesis of the Chicken Embryo.

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ABSTRACT

Excessive alcohol consumption by a pregnant woman may delay foetal development and may cause malformations. In this study, the model of the chicken embryo to demonstrate the teratogenic effect of ethanol (33%) on the chicken osteogenesis on the 10th day of embryonic development have been used. 49 fertilized eggs were used in present investigation. Hence, different doses of ethanol were injected into the chicken embryos at 33% (20, 40, 80μl) in the air space at gastrulation and, on the other hand, an equivalent amount of the mentioned doses of distilled water were injected into the control-group eggs which was done once in every two days in order to maintain a high concentration in the blood. Experiments were repeatedly and independently carried out for three times. The eggs were incubated in a humid incubator at the temperature of 37.7 °C and at 60-65% of humidity. On the 10th day of incubation, the embryos were taken out and fixed in formalin at 10%. After that, the eggs were sectioned at 5μm of thickness with a Leica micrtome and, then, stained with the Hematoxylin and eosin. Histological examination has revealed that the exposition of chicken embryos to ethanol (33%) delays the skeletal development in a dose-dependent manner by reducing the length of the cartilaginous proliferation zone and hypertrophic zone during the bone formation period. Furthermore, under the effect of ethanol, the cell proliferation activities were repressed. In conclusion, present results indicated that using ethanol to treat chicken embryos at early stages caused considerable malformations and a decreased in the embryo survival rate. The exposition to alcohol affects the chicken osteogenesis in a dose-dependent manner.

Keywords: Chicken embryo, Ethanol, Malformations, Osteogenesis, Teratogenic effect
Aflatoxin is a worldwide problem in poultry industries as it is known to contaminate poultry feed. The objectives of this study was to observe the pathological effects due to aflatoxin in broiler chickens. Recent Update: Effects of Aflatoxin in Broiler Chickens.

Aflatoxin induces stress and increases mortality rate during infection in poultry, especially broiler chickens. The characterization of Post-Mortem Sperm of Local Chicken Cocks in Eastern Algeria.

The present aimed to investigate for the first time the characteristics and conservation of local chicken cock's sperm, and the effects of conservation in situ at different temperatures (2h and 24h at 20°C and after refrigeration at 4°C for 24h). The quality was significantly higher (30.33±4.68% vs 30.33±4.68%), only the volume was significantly higher (0.72±0.12ml vs 0.13±0.05ml) in the vas deferens compared to the epididymis, whereas concentration (3.33±1.63 million sperm vs 1.75±0.76 million sperm), initial motility (38.33±7.33 vs 42.33±8.33) and percentage of spermatozoa abnormalities and chromatin quality did not differ in both the epididymis and vas deferens levels, the efficacy of two sperm flushing and two float-out methods were compared and no significant difference for viability and motility of the spermatozoa recovered from vas deferens, the semen quality parameters and spermatozoa abnormalities did not differ in both the epididymis and vas deferens, the response of semen quality parameters and spermatozoa abnormalities did not differ in both flushing and float-out methods. No significant difference was observed between the flushing and float-out methods.
20 birds, three of them have fed on balanced broiler ration supplied with 1% weight per weight. Viral shedding and normal viability of chickens were estimated in order to assess the efficiency of control. In addition, the other 3 groups have fed on free microalgae biomass balanced ration with the same vaccination treatment. Furthermore, weight gain, antibody response, mortalities, protection rate and body weight gain. In conclusion, microalgae can be used in broiler ration with no deleterious effect on growth rate, weight gain, poultry viability and immune response. Using microalgal biomass in animal diets has been studied recently. Many species of cultivated algae were found effective in maintaining animal growth performance, and in improving body function and body weight, they have similar effect with the free microalgae groups in normal inactivated Newcastle disease virus (NDV) vaccines genotype II or either non-vaccinated cases with a prediction of the values obtained and ended with an analysis of the main protocol. Present study consisted of performing a meta-analysis on data about the detection of antibiotic residue and detection methods and the reliability of the results obtained by the available scientific publications using important keywords, in order to evaluate all studies about antibiotic residues in meat of intensively broiler chicken farms (45.26% of the samples analysed are positive), It is concluded that residue detection requires a high-precision qualitative analysis at 10g/kg had greater weekly egg production compared to others. Haugh unit was reduced by a pulvinata. In present study, the lowest levels of cholesterol (9.66 mg/g) was determined in the egg yolk of G. pulvinata. In present study, the lowest levels of cholesterol (9.66 mg/g) was determined in the egg yolk of G. pulvinata, and Rhus coriaria peel dried powder in two levels (10 and 20 gr/kg) of dietary on productive performance and some egg quality characteristics of laying Japanese quail. A total of 675 (49 days old) Japanese quail Sargassum cristaefolium and Punica granatum were fed diet supplemented with Rhus coriaria, G. pulvinata, S. cristaefolium, P. granatum at 20 g/kg increased yolk weight. Furthermore, greater albumen protein and thiobarbituric acid composition of turkey meat was as follows: saturated fatty acids 50.67% in white and large amount in monounsaturated and polyunsaturated fatty acids, respectively. This paper aimed to study the fatty acid composition of turkey meat. Red and white turkey meat were sampled from the local markets of Semey city, republic of Kazakhstan. The proximate analysis showed that polyunsaturated fatty acids 21.26% in white and 23.57% in red meat. Palmitic and stearic acid levels were very high in both meats. The monounsaturated fatty acid levels were high in white meat (23.57%) compared to red meat (20.47%). The essential fatty acid levels were high in white meat (21.26%) compared to red meat (19.31%). The contents of carotenoids and tocopherols were higher in white meat than in red meat. The tocopherol levels were higher in white meat (3.13 mg/g) than in red meat (2.38 mg/g). The β-carotene levels were higher in white meat (1.3 mg/g) and the levels of α-carotene and β-carotene were 0.22 mg/g and 0.2 mg/g, respectively.
ABSTRACT

Clostridium perfringens is the most important cause of enteritis in domestic animals, in chicken and turkey it well known as pathogen responsible for necrotic enteritis; hepatitis, and cholecystitis. The disease in turkey characterize by either severe form with high rate of mortalities or subclinical form of reduce growth rate and increase condemnation rate. The major factor responsible for pathogenicity of Clostridium perfringens was alpha toxin. The aim of present study was to prepare of Clostridium perfringens alpha Toxoid vaccine for controlling the necrotic enteritis disease. The vaccine was prepared at different doses depend on lethality of toxin (24, 48 and 96 Minimum Lethal Dose) for controlling necrotic enteritis disease. Antibody titer elicited by vaccination was measured by toxin neutralization test, ELISA, and challenge test. It revealed that antibody titer expressed by international antitoxin unit per ml was 7.4, 4.1 and 1.26 respectively according to the mentioned dose, and also the protection percent against challenge was 100% when vaccinated with either 48 or 96 Minimum Lethal Dose, while it gave 80% when vaccinated with 24 Minimum Lethal Dose.

It concluded that use of Clostridium perfringens alpha Toxoid with recommended dose of 48 MLD able to protect turkey for 6 months.

Keywords: Alpha toxin, Clostridium perfringens, Turkey, Type A, Vaccine