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
ABSTRACT

Recent Update: Effects of Aflatoxin in Broiler Chickens.

Keywords: Conservation, Eastern Algeria, Epididymis, Local cocks, Post-mortem, Vas deferens

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 post-mortem sperm, obtained from epididymis and the vas deferens of 18 pairs of adult local chicken cocks from the east of Algeria (age, 12-24 months, body weight 1.50-2.53 kg). And chicken cocks from each replication were slaughtered for carcass evaluation. The hematological indices of broiler chickens.

Concentration (3.33±1.63 million sperm vs 1.75±0.76 million sperm), initial motility (77.50±6.89% vs 75.83±8.61%), viability (75±10.39% vs 74.67±10.15%) and abnormality (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 no significant difference for viability and motility of the spermatozoa recovered from vas deferens, and no significant difference for abnormality and acrosome integrity. Therefore, it can be concluded that good quality semen samples can be collected from the vas deferens with the flushing and float-out methods, and no significant difference was observed between the flushing and float-out methods.

Concentration and initial motility were significantly higher (P<0.05) at the epididymis and the vas deferens levels, the efficacy of two flushing method, and semen of Algerian local cocks can be preserved at 20°C for 24h.

The aim of the present study was to determine the effect of different bedding materials on the growth and performance of broiler chickens. A completely randomized design was used and the treatments included rice hulls, groundnut hulls, wood shaving, sharp sand and control. The treatments were evaluated based on their impact on feed intake, weight gain, feed conversion efficiency, carcass percentage, post-mortem parameters, and the hematological and serum biochemical parameters of the broiler chickens. A completely randomized design was used and the treatments included rice hulls, groundnut hulls, wood shaving, sharp sand and control. The treatments were evaluated based on their impact on feed intake, weight gain, feed conversion efficiency, carcass percentage, post-mortem parameters, and the hematological and serum biochemical parameters of the broiler chickens.
viral shedding and normal viability of chickens were estimated in order to assess the efficiency of microalgae as a feed additive. The results showed that the microalgae have no hazard effect on feed and water intake as well as enhanced viability of chickens. And in regards to immune control. In addition, the other 3 groups have fed on free microalgae biomass balanced ration up to 5, 10 or 20% (W/W) in order to assess better performance on poultry production.

In conclusion, microalgae can be used in broiler ration to provide protection rate and body weight gain. Using of microalgae collected from high rate algal ponds (HRAP) as a feed additive to poultry feed and water intake as well as enhanced viability of chickens. And in regards to immune control. In addition, the other 3 groups have fed on free microalgae biomass balanced ration up to 5, 10 or 20% (W/W) in order to assess better performance on poultry production.
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