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

Boussouar H, Khenenou T, Bennoune O and Berghiche A.


DOI: [https://dx.doi.org/10.36380/jwpr.2019.4](https://dx.doi.org/10.36380/jwpr.2019.4)
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

Kurniasih and Prakoso YA.

Aflatoxin induces stress and increases mortality rate during infection in poultry, especially broiler chickens. The objectives of this study was to observe the pathological effects due to J. World Po...
ABSTRACT

Microalgae Biomass Application in Commercial Broilers Nutrition and Their Efficacy

20 birds, three of them have fed on balanced broiler ration supplied with 1% weight per weight
up to 5, 10 or 20% (W/W) in order to assess better performance on poultry production.
algae were found effective in maintaining animal growth performance, and in improving body
serological response and viral shedding post vaccination with NDV vaccines as well as similar
function and body weight, they have similar effect with the free microalgae groups in normal
on feed and water intake as well as enhanced viability of chickens. And in regards to immune
conclusion dried microalgal biomass harvested from HRAP can be used in broiler ration with no
broilers ration was studied. One hundred and twenty broiler chicks were divided into 6 groups of
Furthermore, future studies should be applied with increasing microalgae percent in poultry feed

ABSTRACT

A Meta-Analysis on Antibiotic Residues in Meat of Broiler Chickens in Developing
Countries.
Berghiche A, Khenenou T and Labiad I.

ABSTRACT

The current study was conducted to examine the influences of
, R. coriaria[Full text
were randomly distributed into nine groups with three replicates of 25 birds in each. Results
. Diet supplemented with
. Punica granatum
ABSTRACT

In present study, the lowest levels of cholesterol (9.66 mg/g) was determined in the egg yolk of
a pulvinata
showed that egg weight, shell weight, albumen weight and shell thickness were not influenced
, and
Research Paper
dietary medicinal plant type and dosage. Moreover, the birds fed diet supplemented with
R. coriaria
groups
Rhus coriaria
and
S. cristafolium
Habibi H, Ghahtan N and kohanmoo MA.

ABSTRACT

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.
were sampled from the local markets of Semey city, republic of Kazakhstan. The proximate
This paper aimed to study the fatty acid composition of turkey meat. Red and white turkey meat
52.64% in red meat; monounsaturated fatty acids 28.07% in white and 23.79% in red meat;
polyunsaturated fatty acids 21.26% in white and 23.57% in red meat. Palmitic and
Keywords:
Tazeddinova D, Mironova I and Rebezov M.
Fatty Acid Composition of Female Turkey Muscles in Kazakhstan
Igenbayev A, Nurgazezova A, Okuskhanova E, Rebezov Y, Kassymov S, Nurymkhan G,
ABSTRACT

Clostridium perfringens is the most important cause of enteritis in domestic animals, in chicken and turkey it is well known as a pathogen responsible for necrotic enteritis, hepatitis, and cholecystitis. The disease in turkey is characterized by either a severe form with high rates of mortality or a subclinical form with reduced growth rate and increased condemnation rate. The major factor responsible for the pathogenicity of Clostridium perfringens is alpha toxin. The aim of the present study was to prepare a Clostridium perfringens alpha Toxoid vaccine for controlling the necrotic enteritis disease. The vaccine was prepared at different doses depending on the lethality of the toxin (24, 48, and 96 Minimum Lethal Dose) for controlling the necrotic enteritis disease. Antibody titer elicited by vaccination was measured by toxin neutralization test, ELISA, and challenge test. It was revealed that the antibody titer expressed as 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 was concluded that using Clostridium perfringens alpha Toxoid with a recommended dose of 48 MLD is able to protect turkey for 6 months.

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