Malmakov N., Baimazhi Ye., Turabekov M.

INCREASE FERTILITY RATE OF SHEEP KAZAKH BREEDS OF SHEEP USING METHODS OF BIOTECHNOLOGY

Annotation

In this article, the results of obtaining hybrid progeny of the first generation from crosses of sheep Australian white breed of Kazakh fat-tailed ewes with the use of biotechnological methods of animal reproduction, such as sperm cryopreservation and laparoscopic artificial insemination and the study of fertility of ewes depending on their age bred in farm "Razahun" Shu district Zhambyl region.

Keywords: male, female fertility, fat sheep, biotechnology, cervical, laparoscopic, fresh received, frozen, sperm, insemination.

УДК 619:636, 5

Maulanov A.Z., Arzymbetov D.E., Amirgalieva S.S.

Kazakh national agrarian university, Almaty

PATHOLOGICAL CHANGES IN THE INTERNAL ORGANS WITH URINE ACID DIATHESIS IN ABYSSINIAN HORNED CROWS IN CONDITIONS OF THE ALMATY ZOO

Abstract

The paper presents the result of the study of pathomorphological changes of organs and tissues in urine acid diathesisin abyssinian horned crows. Anatomic examination of diseased and dead crows revealed urine acid diathesis as the main source of the problem complicated by deep disturbances of vitamin and mineral metabolism.

Keywords: Abyssinian horned crows, urine acid diathesis, liver dystrophy, pathomorphology.

Introduction

Unnatural habitat, stress from unusual surroundings, limited territorial space, non-traditional feeding predispose are the main causes of the emergence and development of non-contagious pathology. In this connection, the study of the pathoanatomical picture of urine acid diathesis in Abyssinian horned crows in the conditions of the Almaty's zoo was of undoubted interest. In studying the problems of preservation of Abyssinian horned crows in the Almaty Zoo, it is established that uracid diathesis is one of the causes of morbidity and mortality in the period of development [1, 2].

Urine diathesis is characterized by an increase in the formation and accumulation of uric acid and salts in the blood (hyperureukemia), followed by the deposition of crystals of uric acid and amorphous sodium urate into various tissues and orgens. Birds of all kinds and ages, including embryos, are sick. Diathesis may be the main cause of bird mortality (30-40% of the total number of the dead) [3, 4].

The appearance of this disease in birds in conditions of cellular maintenance, including wildlife in the zoo, what associated with abundant and prolonged protein nutrition with animal products (meat, fish, meat-and-bone meal and fishmeal) and vegetable (concentrated feed) origin, especially when there is a shortage green and other vitamin feeds[1, 2, 3, 4].

As far as we know, this disease has not been described, and we consider it necessary to share information about it from literary sources and our own foresight experience.

Objective: to determine the features of pathomorphological manifestations of urine acid dia- thesis.

Materials and methods

The study was conducted from 2014 to 2017 in the Almaty Zoo and at the Department of Biological Safety at the Kazakh National Agrarian University. The object of the study were corpses of five Abyssinian horned crows. Pathoanatomical autopsy was performed in the prosektorii department of Biological Safety in the daylight. Samples were sealed in a 10% solution of neutral formalin. Samples 6-7 microns thick after dewaxing for visual observation were stained with hematoxylin and eosin. Posting the material was carried out according to the author's recommendation. To objectively confirm the data, the most characteristic areas are photographed and presented in the work.

Research results

The Abyssinian horned crows have a large structure, long wings and a tail, also elongated high legs. Plumage is black with a small white speck on the end of the wing. Beak is huge, almost unbent, flattened on the sides and at the end of dull, black flowers with a red spot on the upper half of the beak, it is either closed or open. The outgrowth resembles a horn. The natural habitat of the Abyssinian horned crow in the wooded steppes and mountains (at an altitude of 1000 and 2000 m) of Africa from the Gambia to Uganda.

According to the results of the analysis of the anamnestic data, all ill birds were clinically noticed inferiority, refusal of feed, thirst, tense gait, diarrhea, shortness of breath, loss of appetite, ruffling and fall of feathers, blueing of visible mucous membranes reddening of the skin around the cloaca. The fluff and the feather around the cloaca are stained with a white dropper containing croupiers of uric acid salts, the skin in this place is inflamed.

At the autopsy (pic.1) of the corpses of birds, the following pattern of pathoanatomical changes was revealed: on the serous membrane of the abdominal cavity, the heart, liver, spleen, intestine, chalky, easily removable overlays (pic.2). In one case, the serous membranes of the internal organs were powdered with a fine crystalline powder. In another case, the deposits became gypsum-like, the heart-shaped shirt adhered to the epicardium. The mucous membrane of the larynx and trachea is swollen and diffusely reddened. Kidneys with visceral form of the disease were constantly amazed. The kidneys are enlarged in size, flabby consistency, the structure is smoothed out, gray - white with sharply protruding lobulation. At close examination on a surface and a cut dense white impregnations in size up to 1 mm are visible. The ureters are dilated, filled with urates and white strands.

Pic.1. The corpse of abyssinian horned crow internal

Pic.2. The deposition of urine acid salts on the organ

In all cases, the defeat of the heart. The myocardium had a blunt apex, subepicardial fat is well pronounced. On the pericardium, a plaque was observed in the form of dust and gypsum solid overlays. Pericardial flabby consistency, rough, removed with difficulty. The pericardium contains a white, crumbly mass. Spicles of the epicardium with pericardium were noticeable. Myocardium is heterogeneously colored, red in places, grayish pink in places, loose in consistency.

The liver looked enlarge in volume, edges were blunted, the parenchyma slightly swells over the edges of the incision. It is a flabby consistency, red-brown in color, the pattern of the lobate structure is smoothed out, on the surface by places of application of white mass.

The surface is variegated. Under an easily removable overlap, an inflamed serosa.

On the pleural surface of the lungs, whitish overlap is visible in places. Lungs are of a testy consistency.The spleen is red, round in shape, the follicular structure is pronounced.

The mucous membrane of the glandular stomach is swollen, covered with viscous adhesive mucus, under which are visible lesions in the form of erosion and ulcers.Thin section of the intestine - the mucous membrane swollen, reddened with focal sedimentation of salts.

Histological examination. In microscopic examination of the kidneys, unevenly expressed venous plethora of the cortical and cerebral layers was noted. In the lumen of the renal tubules, the cells of the epithelium and accumulations of salts of uric acid are contained. Epithelium of renal lobes with pronounced dystrophic changes up to necrobiosis and necrosis. Necrotized epithelium of the renal lobes is desquamated over a considerable extent. In some glomeruli, sclerotic changes of varying severity are determined. The capsule of these glomeruli is thickened and sclerosed, sclerosis of capillary loops is noted. In the places of these glomeruli is thickened and sclerized, there is sclerosis of capillary loops. In places where the mass with radiant crystals of uric acid and amorphous sediments were deposited, necrotic foci were found around which an inflammatory infiltrate with the presence of leukocytes, histiocytes and especially characteristic giant cells was formed. After the exudative - cellular reaction, more or less pronounced proliferative changes occur, which are accompanied by the formation of granulation and fibrous tissues with deformation of the affected organs. Epithelium of the renal tubules in a state of granular dystrophy and necrosis, the stroma is infiltrated by lymphoid and giant cells. In the medulla, the veins are enlarged, filled with blood, stasis and minor perivascular hemorrhages are determined. The liver is the central vein and the intercellular capillaries are moderately filled with blood. A moderate diffuse interstitial edema, focal vacuolar hepatocyte dystrophy and lymphocytic infiltrates in the stroma are recorded. In the heart, cardiomyocytes have signs of granular and vacuolar dystrophy, myocardial interstitium is edematous. Vessels are injected with blood, the connective tissue base is loosened, and lymphoid, histiocytic cells are found in the interstitium along the Purkinje filaments. In the lungs, there was a disturbance of blood circulation in the form of hyperemia, stasis. Interlobular connective tissue edematous, in bronchi a picture of chronic bronchitis with thickening of the walls, excessive mucus formation and the presence of lymphoid infiltrates is revealed.

The conclusion.

Based on the above data, it can be concluded that in the Abyssinian horned raven, urine acid diathesis, morphological changes in the urinary organs manifest dystrophy of varying severity, with lesions recorded in the liver, heart, lungs, spleen, pancreas.

Literatura

1. Бессарабов Б.Ф. Подагра (мочекислый диатез), Птицеводство. 2001. №5. С.27-29.

2. Якименко Н.Н. Иммунный статус и местная защита дыхательных путей у цыплят и ремонтного молодняка кур при мочекислом диатезе. Дис. канд. вет. наук/ Иваново.2004.18с.

3. Имангулов Ш.А. Мочекислый диатез. Подагра. Мочекаменна болезнь птицы. 2001,

4. Hastings M.Y. A historu of ostrich farming: its potential in Australian agricultur/ M.Y. Hastings/ World journal of Zoology. 2009.6.(2). P.67-68.

Мауланов А.З., Арзымбетов Д.Е., Амиргалиева С.С.

АЛМАТЫ ХАЙУАНАТТАР БАҒЫНДА ӨСІРІЛЕТІН АБИССИН МҮЙІЗДІ ҚАРҒАСЫНЫҢ НЕСЕП ҚЫШҚЫЛДЫ ДИАТЕЗІНІҢ ПАТОЛОГИЯЛЫҚ АНАТОМИЯЛЫҚ ӨЗГЕРІСТЕРІ

Түйін

Несеп қышқылды диатезбен ауырған абиссин мүйізді қарғаларының ішкі мүшелері патологиялық морфологиялық тәсілмен зерттелген. Зерттеулер нәтижелері бойынша несеп қышқылды диатез құстар ағзасында витаминдер мен минералдар алмасуының бұзылуы салдарынан пайда болғаны анықталды.

Кілт сөздер: абиссин мүйізді қарғасы, несеп қышқылды диатез, мүшелер дистрофиясы, патоморфология.

Мауланов А.З., Арзымбетов Д.Е., Амиргалиева С.С.

ПАТОЛОГОАНАТОМИЧЕСКИЕ ИЗМЕНЕНИЯ ПРИ МОЧЕКИСЛОМ ДИАТЕЗЕ У АБИССИНСКОГО РОГАТОГО ВОРОНА В УСЛОВИЯХ АЛМАТИНСКОГО ЗООПАРКА

Аннотация

Изучен материал от павших абиссинских рогатых ворон.Установлено, что причиной падежа птицы послужил мочекислый диатез, протекающий на фоне глубоких нарушенийвитаминно-минерального обмена веществ.

Ключевые слова: Абиссинский рогатый ворон, мочекислый диатез, дистрофия органов, патоморфология.

УДК 619:61:33-636.7

Махмутов А.К., Муралинова Ж.К., Туребеков О.Т., Шманов Г.С., Кенжеев Ш.Т.

Казахский национальный аграрный университет

СТИМУЛЯЦИЯ ЛЕЧЕНИЯ ГНОЙНЫХ РАН

Аннотация

В статье приводятся данные, полученные при лечении инфицированных ран у лошадей активным дренированием раны 10% раствором хлорида кальция в комбинации с мазью прокан. Установлено, что у опытных животных заживление раны происходит более качественно, ускоряются сроки репарации на 5-7-ые сутки по сравнению с лечением линиментом Вишневского.

***Ключевые слова*:** лечение, лошадь, стимуляция, гнойные раны, мазь прокан.

Введение

Основная задача комплекса целенаправленных вмешательств на рану - это изменить течение процесса в желаемую для врача сторону. Уменьшение повреждающего воздействия травмы и развития инфекции в ране, предельно ограничить альтерацию, ускорить сроки формирования защитной реакции с усилением необходимых для благоприятного течения процесса явлении (фагоцитоз, иммунобиологические реакции) и