

IMPROVEMENT OF CHEMOPREVENTION OF EIMERIOSIS IN CHICKENS

A.N.Xudjamshukurov, A.U.Asanov

Samarkand state university of veterinary medicine, livestock and biotechnologies,
Samarkand, Uzbekistan

Abstract. *The article provides information about the chick eimeriosis and the effectiveness of eimeriostatics + vitamins in combating it. In the prevention of chick eimeriosis, a local preparation and the addition of vitamins to it are one of the main ways to combat this disease. At the same time, two issues are being addressed: the prevention of diseases and the increase in the immune system of the body of the bird. Good growth, weight gain and increased yields in poultry.*

Keywords. *Poultry, hen, chicken, eimeria, eimeriosis, drug, eimeriostatic, vitamin, epizootic state, efficiency, amprolin-300, amprovet 25%, intrakoks, DD-toltra.*

Introduction. At present, both on a global scale and in the Republic of Uzbekistan, special attention is paid to poultry farming, especially meeting the population's needs for dietary products - chicken meat, eggs, as well as enriching the domestic market with these products and exporting them, which is considered one of the main tasks.

According to our scientists, the widespread prevalence of chicken eimeriosis in poultry farms, the extent of invasion was 57.4-79.1%, the intensity was 5.2-212.4, which was registered [3].

High humidity in the poultry farm, low quality feed, violation of the technology of their maintenance, which is caused by the epizootic development of invasion [1;2;6].

In keeping chickens, feed consumption and increased veterinary costs bring great

economic damage to costs and a subsequent decrease in poultry production indicators (eggs, meat) for farmers and poultry owners [4;5;7].

Methods and materials of research. The experiments were carried out in a small poultry farm at the Samarkand University of Veterinary Medicine and the scientific laboratory of the department, clinical, scatological, and pathological indicators were studied. For experimental infection of experimental chickens, we used an eimeria culture prepared with an eimeria oocyst. The indicator of the drug used and its effectiveness is determined by the preservation of chickens at the end of the study, both the live weight of one chicken and its weight gain, and the anti-eimeriosis index (AEI).

The effectiveness of eimeriostatics and additional vitamins is being tested under experimental conditions. Eimeriostatics in the composition of intracox (2.5% toltrazuril), amproline - 300 ws in the composition (1.0-300 mg of amprolium hydrochloride), a Dutch drug.

The spread of chicken eimeriosis was studied in several poultry farms in the Samarkand region.

Results and discussion of research. With eimeriosis of chickens, the influencing factors on the maintenance and technology of feeding, age, seasons - all this negatively affects the epizootic process.

The intensity of eimeriosis invasion and the degree of extensiveness are relatively common in young chickens from 15-20 days old to 3 months old. Seasons play an important role in the spread of eimeriosis; in spring and autumn, infestation increases significantly.

Our study of chicken eimeriosis among young and growing chickens showed its widespread distribution, and the extent of invasion was noted in 15-56%.

For the experiments, 5 groups of chickens were selected, each containing 20 heads of 14 day-old chicks and weighed on scales (weight difference ± 5 g), based on this:

The first group was an uninfected control group and received a regular diet without drugs until the end of the experiment. The 2nd group of chickens was infected with eimeria cultures and did not receive eimeriastats (LD 50-75, E.acervulina - 200,000, E.maxima - 15,000, E.tenella - 40,000 pcs. 1 ml³ suspension) administered through a syringe using a probe 1 ml per chicken. The 3rd group of chickens was also infected with Eimeria cultures (LD 50-75) and at the same time received intracox at a dose of 1 g. per 1 liter of water and 3 days + rex vital 0.5 per 1 kg of feed throughout the study. 4th group - 1 ml of DD-Toltra per 1 liter of water and 3 days - Biosupervit (1 liter of water 1 ml, 5 days). 5th group - Amproline 1 liter of water 1 gr. 5 days + Rex Vital per 1 kg of food 500 mg for 10 days.

During the research, observations were made and clinical changes in chickens and live weight growth were identified.

The positive result of the tested drugs was assessed taking into account the safety of the livestock and the increase in live weight (Table 1).

The study showed that in group 1 of chickens, which was uninfected, no signs of eimeriosis were detected, and development and growth were indicative. The safety of this group was 100%. Observation was carried out for 25 days. The daily growth of chickens was 13.7 grams, an increase in live weight of 282.2%.

Table 1

Emeryostatic effectiveness of the tested drugs

№	Name of group	Name of drug	Dose of used drugs, mg/kg	Number of chicks	Chick weight before research (g)	survivability potential (%)	Weight after research (g)	Increase in live weight, %	AEI 200 (point)
1.	Control (uninfected)	-	-	20	90	100	344	282,2	200
2.	Control (infected)	-	-	20	90	25	280	211,1	104,8
3.	Experimental	Intrakoks + neovit	1g/1l water+0.5g. per 1 kg feed	20	90	100	325	261,1	192,5
4.	Experimental	DD-toltra + biosupervit	1g/1l water+1g. for 1 liter of water	20	90	100	320	255,5	190,5
5.	Experimental	Amproline + rex vital	1g/1l water+0.5g. per 1 kg feed	20	90	100	335	272	198,5

During the corpses of dead chickens from group 2 (untreated) were opened, pathological changes in eimeriosis were revealed. At the end of the study, it was revealed that the survival rate was 25%, the daily increase in live weight was 11.2 g. Chickens of the 3rd group were treated with intracox and neovit; clinical indicators of eimeriosis were detected in some cases; no cases of mortality were registered in the group. At the end of the study, safety was 100%, daily increase in live weight was 13.0 g, increase in live weight was 261.1%, anti-eimeriosis index was 192.5 points. A 4th study of DD was revealed - toltra + biosupervit - this was expressed by a decrease in appetite, ruffled feathers, but no negative indications were identified.

At the end of the research, survivability was 100%, daily average weight gain was 255.5%, anti-eimeriosis index was 190.5 points. Group 5 - Amprolin + Rex vital, clinical signs of eimeriosis were not observed among the chickens, the chickens ate and developed moderately, safety was 100%, average daily growth was 13.4 g. Live weight 272%, PCI 198.5 points.

Conclusion.

1. Widespread distribution of chicken eimeriosis was noted among chickens from 20 days to 3 months of age, which range from 15% to 56% of the extent of invasion.

2. Studies have shown that for eimeriosis in chickens, 1 g of amproline is used per 1 liter of water. 5 days + per 1 kg of feed 500 mg rex vital 10 days, then safety is 100%, PIC 198.5 points, this does not interfere with the immunity developed by the body against the disease. The drug is approved for use as chemoprophylaxis in broiler and chicken farms.

3. To prevent eimeriosis in chickens, it is recommended to use eimeriostatics and vitamins in parallel in poultry farms at the age of 7-10 days.

Reference.

1. Бессарабов Б.Ф. и др. “Болезни птиц”. //Москва, Издательство Лань, 2007. с.170-179.
2. Бахур Т.И., Згозинская О.А., Кушнирова А.А. Влияние эймериостатиков в комплексе с экстрактом личинок восковой моли 25% на гематологические показатели перепелов при эймериозе. //Материалы V научно-практической конференции международной ассоциации Паразитоценологов, паразитарные системы и паразитоценозы животных, - Витебск ВГАВМ 2016. -с 7-9.
3. Давлатов Р.Б. Эпизоотология эймериоза кур в птицеводческих хозяйствах. //Журнал зооветеринарии. №3, Ташкент, 2008.
4. Ибрагимов Д. Химиопрофилактика эймериоза у цыплят. //Журнал Ветеринария. №12. 2004. –32 б.
5. Кузнецов В.В. Влияние некоторых эймериостатических препаратов и схем профилактики эймериоза на клинический статус и энтеребиоз цыплят-бройлеров. //Дисс. кан. вет. наук. Тюмень – 2006.
6. Малахеева Л.И. Технические характеристики гранулированных кокцидиостатиков формы «КРКА». Эффективность Монлар 10% гранулята (монензина) в контроле за эймериозной инвазией на птицеводческих предприятиях. Самарканд 2006.
7. Xudjamshukurov A.N. “Improvement Of Chemoprophylaxis Of chicken Eimeiosis”. Nat.Volatiles & Essent. Oils, 2021;8 (6): 884-887.
8. Xudjamshukurov A.N., Xo‘jaxonov Sh. “Effests of drugs on blood indicators in mixing chicken eimeriosis and pullorosis”, ACADEMICIA An International Multidisciplinary Research Journal// [https:// saarj.com](https://saarj.com), Impact Factor: SJIF 2021 = 7.492 // Vol.11, Issue 5, May 2021.
9. Holkova, J. Livacox T: ten-year experience in broiler fattening / J. Holkova, P. Bedrnic. //Praxis veter, 2002. №3. – P 213-220.