

NEW CHARACTERISTICS, PREVENTION AND CURE TECHNIQUE OF COCCIDIOSIS IN RABBIT

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ABSTRACT

In this paper, the happening of coccidiosis in rabbit were investigated and its new characteristics and trends were concluded in late ten years. Coccidiosis was enlargement of happening time, universality of anti-drug, seriousness of drug poisoning, complexity of compound infect non-typicality of clinical symptoms and increase of mortality. *Prevent experiment*: the young rabbits (1~3 months old) were selected and divided into 3 groups according to baby weight and weaning time new anti-coccidiosis drug “Kill-coccidiosis” (1884 animals) were made and got the better results compared with the traditional drugs (such as Robenidine (1586 animals) and Coyden (1462 animals)). They were observed for 6 weeks. The results showed that the mortality of Kill-coccidiosis, Robenidine and Coyden groups were respectively 2.9%, 22.9%, 18.4%. The Kill-coccidiosis group was significant different with the other two groups($P < 0.01$). The dead rabbit were autopsied to observe the symptom and the mortality was calculated. *Cure experiment*. The selected sick baby rabbits were divided into 3 groups and fed with different drugs (Kill-coccidiosis (482 animals), Robenidine (266 animals) and Coyden 258 animals). The observation lasted 3 weeks and the cured percentage calculated.. The experiment result showed the dead amounts of Kill-coccidiosis, Robenidine and Coyden group was 4.77%, 22.18%, 21.32% respectively. So the Kill-coccidiosis was a kind of effective drug for coccidiosis. The methods which was effective preventing coccidiosis were pointed out.

Key words: rabbit, coccidiosis, coccidiostat, prophylaxis.

INTRODUCTION

Coccidiosis is an serious parasite disease in rabbit. Generally speaking, it often break out in warm and humid season. Rabbit aged from 1 to 3 months is subject to the disease easily. Therefore, it poses a great threat to rabbit industry. Scientist had made further

research on it and achieved outstanding achievement in its' break regulation, prevention and cure of medicine.

In the paper, happening of coccidiosis was investigated and its new characteristics and trend was concluded, which have challenge for prevention and cure work. Meanwhile, a kind of additive of anti-coccidiosis was developed and got the better results compared with traditional medicine.

New characteristics of coccidiosis

Happing in the whole year

The happening of coccidiosis is relevant to environment. For instance, it often breaks out in warm and humid season. So the major work of prevention and cure in coccidiosis was placed in June to August annual. However, in recent years, the happening time of Coccidiosis is gradually expanding, namely it is possible to happen in every season of year. For instance, In winter of 1996, the author was consulted in some rabbit farms in Baoding. The situation was as follows: weaning rabbit continue to die and there is no significant effects by using various antibiotics. Coccidiosis was determined after examined. The condition was not controlled until anti-coccidiosis drug was used. After that, author disposed of many similar events. Through investigated, it was discovered that the main reason is due to take such measure as fire in house, constructing plastical sheds. The improvement of feeding conditions promoted the oocyst development.

Enlargement of age

Generally speaking, coccidiosis is subject to baby rabbit from weaning to 3 months. However, the author recently discovered that the major of illness is baby rabbit, but there are possibility for lactating rabbit and young rabbit aged from 4 to 5 months, especially for growing fast rabbit. Many study showed that coccidiosis infect rate is very high. But infection is not equal to illness and illness is decided by the kind and number of oocyst, rabbits' resistance and other factors. The effected rabbit resistance is very weak and grows slow. Therefore the enlargement of happening time is easy to understand with poor management and conditions.

Universality of anti-coccidiosis drug

In many regions, such few drugs as Robenidine, Coyden is mainly used to prevent and cure coccidiosis. Thus efficacy of these drugs become poor. For example, the author deal with over ten cases of immunity failure due to use these drugs.

Seriousness of drug poisoning

Because efficacy of traditional drugs is not satisfied, people began to utilize new drug. In particular, Maduramicin used in recent years bring a great economic loss. Since June in 1996, the author diagnose 23 poisoning rabbits cases due to use these drugs. The author

concluded that Maduramicin is of great poison, high sensitivity and can not be used as anti-coccidiosis drug of rabbits.

Complexity of compound infect

In recent years, most infected cases is the mixture of coccidiosis , E.coli, pasteurella multocida and other parasites inside and outside of body. It take great difficulty to diagnose and cure.

Clinical non-typical symptoms

Rabbit coccidiosis was divided into 3 types according to the infected tissue. There were exact description of clinical symptom about coccidiosis in many texts. However clinical symptoms of coccidiosis is not typical as text told. There were many symptoms such as depression, exciting, death suddenly, dying gradually, diarrhea, constipation etc.

Increasing of mortality

Species of infectious disease in rabbit is great, however percentage of illness and mortality was not the same sequence of disease according to mortality in recent years, its sequence seems enteritis, coccidiosis, But it was discovered in recent years that the order of coccidiosis moved apparently ahead. In some regions or seasons, coccidiosis had reached the second status. In individual region, its order reached the first status which indicated incidence and mortality of coccidiosis had overtaken RHD, pasteurella multocida. For instance in 1988, there are two rabbit farms where from February to August reproductive and survival rabbit is 700 and the number of death is about 400, 80% of which is caused by coccidiosis. Therefore seriousness of the disease and importance of preventive and curative work must be realized.

MATERIAL AND METHODS

Effect of “kill-coccidiosis” on prevention and cure of coccidiosis

Basing on regularity of outbreak and new characteristics of coccidiosis in rabbit, as well as problems in preventive method and mechanism of different drugs, the author developed a new anti-coccidiosis drug “kill-coccidiosis” by combination traditional Chinese and Western medicine. It was a kind of mixture of salinomycin, biohumus and Chinese herb medicine ,such as “Qinghao” ,Dahuang” and so on. The author carried out preventive experiment in 5 rabbit farms and curative experiment in 8 rabbit farms breaking out coccidiosis in contrast of Robenidine and Coyden. The main process and results are reported as follows.

Trial pharmaceuticals

Kill-coccidiosis : powder developed in our lab.

Coyden: tablet purchased in market.
 Robenidine: tablet purchased in market.
 Tests is carried out in the same condition.

Rabbit Selection

1 to 3 months old rabbit were divided into 3 groups according to weight and weaning time and fed with diet added different drugs and observed for 1.5 months successively. Mortality of coccidiosis was recorded. As to curative experiment, diseased rabbit were divided into 3 groups at random and administered 3 different drugs and observing for 3 weeks. The number of the dead due to coccidiosis was recorded and curative rate was calculated.

RESULTS

The results showed “kill-coccidiosis” gained a curative rate of 97.06% in prevention from coccidiosis of rabbit. Its efficacy was better than that of Robenidine and Coyden. The survival rate was 95.23% in curative groups and the difference between Robenidine and Coyden was significant. Obviously the efficacy of “kill-coccidiosis”, either prevention or cure, was superior to that of Robenidine and Coyden.

Table 1. Statistic on the effect of several drugs on prevention and cure of coccidiosis in rex rabbit

	Drug	number	mortality
Prevention	Robenidine	1586	22,9
	Coyden	1462	18,4
	Kill-coccidiosis	1884	2,9
Cure	Robenidine	266	22,2
	Coyden	258	21,3
	Kill-coccidiosis	482	4,8

The kill-coccidiosis was mixed into diet 1% during 15 days .

The Robenidine and Coyden were fed as the feed additive compendium (2000)

DISCUSSION

Early prevention

Relation between newborn rabbit’s coccidiosis and female rabbit was very close. Newborn rabbit had infected coccidiosis from female rabbit before weaning and became carrier. Therefore preventing coccidiosis must take measures from female and newborn rabbits. Effective measure decreasing incidence of newborn rabbit was dropping the carry rate of female rabbit. Of course it is more important for most rabbit farm to strengthen postnatal immunity. Before female rabbit produced, all cages especially for footplate,

calving cages and cushion should be completely disinfected. Female rabbits' body and udders must be disinfected with medicine and washed with clean water before milking. Newborn rabbits milk, udders is dipped with some iodine additive, like this, not only female udders is disinfected, but newborn rabbit gain some iodine. It is necessary for excellent rabbit farm to effective control environment temperature, strengthen disinfect, dispose of feces and kill various insects.

Medicine scheme

In light of immaturity for prevention technology of vaccine in rabbit coccidiosis, medicine prevention was option in prevention work. At the same time effective preventive schemes must be made. First rotate medicine was refined that several drugs shifted for use according to necessary procedure to avoid producing anti-drug; second compound medicine was refined that two or above two drugs which contributed to each other were at the same time used to reach dual discontinue. For example sulfaclozine coupled with TMP had been testified. Third avoid using a kind of drug; last adopt new drug and compound Chinese herbs. New anti-coccidiosis drug was used in this trial and got the better results compared with traditional drugs such as Robenidine and Coyden, which demonstrated the effect of new drug and compound drug. We experiment on not only rabbit also cow, for instance the experiment of chick coccidiosis was carried out too. Chicken coccidiosis urine blood was cured with 1.3% 1.5%, and symptoms disappeared 3d later. So it was welcomed by customers.

Avoid for drug abusing

Using drug not corresponding with regulation and disease randomly looked for doctor existed in rabbit farm during preventing coccidiosis. Plenty of poisoning of maduramicin was an example. What's more, sulfaclozine used for long had bad effect on rabbit body and decreased efficiency of rabbit gaining.

Examine timely

The whole year of happening time for coccidiosis brought great difficulty to preventive work. We hope not to add to anti-coccidiosis drug in any season because this would increase productive cost. However we further hope not to bring to great death due to ignorant of immunity. Therefore we must timely detect coccidiosis spawn and take necessary immune measure in terms of its development.

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