Coccidiosis in a Domestic Rabbit: A Case Report

SHASHI KALA*, ANIL KUMAR1, RAJEEV KUMAR2 AND NIKEE KUMARI

INTRODUCTION

Coccidiosis is a highly contagious sporozoal infection in rabbits. It is caused by intracellular protozoan parasites of the genus *Eimeria* and causes significant mortality in domestic rabbits. In rabbit fifteen species of *Eimeria* have been identified (EL-Shahawi et al., 2012), of them fourteen species are known to infect the intestine while one is located in the biliary ducts of the liver. There are two types of coccidiosis in rabbit- intestinal and hepatic. Intestinal coccidiosis mainly affects young weaned rabbits of six week to five months age. It cause severe disease in rabbits and the severity depends up on the infective dose, parasite species, immune status and age of animals (Sivajothi et al., 2014). Adult rabbits are usually symptomless carriers of coccidian infections (Coudert et al., 2000). Hepatic coccidiosis (*Eimeria stiedae*) is one of the most pathogenic coccidian protozoans in domestic rabbits causing severe coccidiosis and increased mortality (Ebtesam, 2008). It causes severe damage to the liver and is more pathogenic in young rabbits and led to death among these animals.

Usually, anticoccidial treatment is only successful for rabbits that have been infected for less than 5 or 6 days. If treatment is successful, diarrhoea and mortality may still be seen for few days after the initiation of the treatment. A number of coccidiostats are used to control the disease. In India commonly used coccidiostats are Bifuran, Sulpha drugs and Amprosol (Sharma and Srivastava, 1989). Regular use of coccidiostats by mixing them with feed or water may be used to control the coccidiosis in rabbits.

CASE HISTORY AND CLINICAL EXAMINATION

An eight months old female rabbit was presented to the Institute of Animal Health and Production, Bihar, Patna with history of anorexia, dullness and occasional watery diarrhoea. The clinical examination revealed 100.4° F rectal temperature, emaciated body, rough hair coat, pendulous and distended abdomen. The faecal sample was collected; examined microscopically for screening of internal parasites. The case was diagnosed as coccidiosis and animal was treated with Sulphaquinoxaline and Diaveridine for a week. One week later, rabbit was recovered clinically and faecal sample was found negative for *Eimeria* Species.

TREATMENT AND DISCUSSION

Microscopical examination of faecal sample revealed the presence of oocysts of *Eimeria* species indicating the diagnosis.

**ARTICLE INFO**

Received on : 29-04-2019
Accepted on : 25-06-2019
Published online : 09-07-2019

**ABSTRACT**

Coccidiosis is considered to be a major problem in rabbits as mortality rate may go high particularly during and after rainy season. In this case report, clinical symptoms observed were anorexia, dullness, emaciated body, rough hair coat, pendulous and distended abdomen. The faecal sample was collected; examined microscopically for screening of internal parasites. The case was diagnosed as coccidiosis and animal was treated with Sulphaquinoxaline and Diaveridine for a week. One week later, rabbit was recovered clinically and faecal sample was found negative for *Eimeria* Species.

**KEYWORD**

Eimeria Species, Rabbit, Treatment
Eimeria species (Fig. 1) and diagnosed the animal was suffered from coccidiosis. The rabbit was treated with Sulphaquinoxaline and Diaveridine at the dose rate of 1g/litter of water for 7 days. One week after treatment, there was marked clinical recovery and faecal sample was also negative for coccidial infection. Most of the anticoccidial drugs are used only for prevention of disease, while sulphonamides are currently used primarily for the treatment of coccidiosis outbreak (Pakandl, 2009).

Sulphaquinoxaline, a sulpha anticoccidial agent, is a traditional antibiotic drug widely used to control coccidiosis in poultry and rabbits (Chun et al., 2015). Successful treatment of rabbit coccidiosis with sulphaquinoxaline has been reported by earlier workers (Laha et al., 1999, Magray et al., 2010). The dose recommended in present study was in accordance with Becha and Devi (2014). However Singla et al., (2000), reported that 2.5% Toltrazuril (Baycox) given at 25ppm in water for 2 days was highly effective method of reducing oocysts due to hepatic coccidial infection to nil.

CONCLUSION
Hence it was concluded that Sulphaquinoxaline and Diaveridine can be use for treatment of coccidiosis in rabbit. Coccidiosis caused by Eimeria species is responsible for major losses in rabbit industry. It is thus an emerging disease of increasing importance in commercial rabbits. The control of rabbit coccidiosis is entirely dependent on prophylactic chemotherapy and a number of coccidiostats may be used to control the disease.