Efficacy of DIAREX VET in Treating Rabbit Coccidiosis

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Rabbits are found both as wild and domesticated animals and are used as meat animals called broiler rabbits and as experimental animals in different fields of research. They are excellent animal models to study gastrointestinal disorders. Rabbits suffer from different intestinal disorders wherein the common symptoms are diarrhea, which may be of bacterial, parasitic or other non-specific origin. Coccidiosis encountered in rabbits causing huge economic losses to rabbit breeders. Coccidiosis is a protozoan disease found throughout the world, caused by one of twelve different species of protozoa called Eimeria. Eimeria parasitize and destroy cells lining the intestinal tract of animals. Coccidiosis is of two types, viz., intestinal and hepatic coccidiosis, with the main symptoms being diarrhea, weight loss and reduced appetite with a very high mortality. Intestinal coccidiosis can be diagnosed by examining a fecal sample under the microscope for sporulated oocysts. There are many drugs that have been tried against coccidiosis in rabbits but the protozoan parasite develops resistance to the coccidiostats with repeated usage. Thus, DIAREX VET powder, an herbal preparation was tried against coccidiosis in rabbits.

Fifteen rabbits with dark color loose/semisolid feces were selected for the study. The animals selected were anorexic, losing weight, showing unthriftness, pot bellied and possessing a staring hair coat.

The fecal samples were examined for all the rabbits before administering DIAREX VET by sedimentation technique. Fecal samples from all the animals showed presence of Eimeria oocysts.

DIAREX VET powder was administered orally, at a dose of 200 mg/kg for 2 days to all the animals. The feces were examined for consistency every day for 5 days after the administration of DIAREX VET. From day 2 onwards, the feces were normal in consistency. The fecal examination conducted on day 3 and day 7, was found negative for oocysts.

DIAREX VET can be used to treat coccidiosis in rabbits as it contains the herb Holarrhena antidysenterica, which is being used extensively to treat intestinal disorders.

DIAREX VET has also been tried in lactose-induced diarrhea in rats. The animals were normal on day 5 in the group administered DIAREX VET at a dose of 750 mg/kg (Mitra et al., 2001). Studies have been conducted on Kutajarishta with special reference to amebiasis in guinea pigs (Dinesh Chandra et al., 1988). Kutajarishta contains Holarrhena antidysenterica, a well-known remedy for diarrhea, thus reducing the disease-producing capacity of Entameba histolytica. Singh (1986) conducted clinical studies on amebiasis and giardiasis with kutaja
(Holarrhena antidysenterica) and found that there was a 70% good response in Entameba giardia cyst compared to the control group.

DIAREX VET is an herbal drug possessing anti-diarrheal effects on diarrhoea due to infectious, non-infectious and parasitic origins. It comprises of Tinospora cordifolia, which possesses antispasmodic, anti-inflammatory and antipyretic properties Conessine is the principal alkaloid of Kutaja.

Holarrhena antidysenterica (Kutaja) possesses astringent, antidysenteric, antihelminthic, stomachic, febrifugal and tonic properties, and is used to treat amebic dysentery and diarrhea.

Conessine hydrobromide is prescribed in amebic dysentery. It has a few alkaloids in addition to kurchi, which contains 9.56 percent gum, 0.20 percent resin and 1.14 percent of tannin effective in dysentery that kills paramecium within two hours of aqueous solution of gum. Holarrhena antidysenterica, when used along with the feed (0.3%), effectively controls caecal and intestinal forms of coccidiosis in broiler chicks. This drug has coccidiostatic efficacy against all the endogenous stages of Eimertia tennella of poultry coccidia.

Aegle marmelos possesses astringent, digestive and stomachic properties. It has significant activity against intestinal parasites like Ascaris lumbricoides Linn., Entameba histolytica and Giardia spp.

Cyperus rotundus possessess diaphoretic and astringent properties and is used to treat disorders of the stomach and irritation of the bowels. It is diuretic, anthelmintic, stomachic and stimulant.

The bark of Acacia arabica is used to treat dysentery and diarrhea.

Tannic acid and gallic acids extracted from the galls of Quercus infectoria are used in dysentery and diarrhea.

Bombax ceiba gum is credited with astringent, tonic and demulcent properties and is used in dysentery.

Cinnamomum zeylanicum possesses aromatic, astringent, stimulant and expectorant properties. It is beneficial in gastric irritation, cramps of the stomach, diarrhea and dysentery.

Zingiber officinale possesses carminative properties. In veterinary medicine, ginger is used as a stimulant and as a carminative in indigestion of horses and cattle.

Acacia catechu possesses astringent properties and is used in diarrhea and cough.

Shankha bhasma possesses astringent and digestive properties.

Shudda gairika bhasma is a silicate of alumina and oxide of iron and aids in absorption of tannins. It helps to balance salts lost due to dehydration.

The study was undertaken to evaluate the efficacy of DIAREX VET in rabbits having diarrhea. DIAREX VET possesses Holarrhena antidysenterica, which is proven to be
effective against Coccidia of poultry caused by *Eimeria tanella*, *Eimeria enfenstinalis*, *Entamoeba* and *Giardia*.

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**References**
