

# HAEMATOLOGY IN RABBIT COCCIDIOSIS\*

Coccidiosis in rabbits is essentially a disease of young ones very common in breeding and rearing establishments where sanitation is poor. In India rabbit coccidiosis was first reported by Cooper (1927). Eventhough rabbit coccidiosis is studied much, there are only a very few reports on haematological aspect. The present study reports the haematological alterations in rabbits affected with coccidial infections under natural conditions.

The study was conducted on rabbits in Rabbit Breeding Unit, Mannuthy. Two groups, each of ten rabbits were identified. The first group consisted of coccidiosis infected rabbits which were again subdivided into seven subclinically infected (faecal oocyst count range 5000-30,000) and three clinically infected (faecal oocyst count range 35,000-70,000) rabbits. The second group comprised of ten healthy rabbits and was regarded as the control group.

Blood was collected from ten clinically infected and control group in sterile vials with

EDTA as anticoagulant for the estimation of packed cell volume (PCV), haemoglobin (Hb), total erythrocyte count (TEC) and total leukocyte count (TLC) (Benjamin, 1978).

Statistical analysis of the haematological values recorded a significant variation between the clinically infected and apparently healthy animals as furnished in the table. Variation between the subclinical and healthy groups was not significant. PCV, Hb and TEC were found to decrease significantly in clinical infections whereas the TLC showed a slight increase which were in accordance with the findings of Sena *et al.* (1997)

Significant reduction in PCV, HB, and TEC is considered to be characteristic in anemia (Coles, 1986). Reduction of values in the present study can be correlated with the petechial lesions in the intestine and enteritis as a result of coccidial infection. The slight increase in the TLC may be regarded as a response to tissue destruction and inflammation of the intestine by the host body.

**Table** Haematology of Healthy and Infected Rabbits

Category	Healthy	Infected		‘t’ Values	
		Subclinical	Clinical	Healthy	Infected
No. of Rabbits examined	10	7	3	10	10
Parameters	Mean $\pm$ SE	Mean $\pm$ SE	Mean $\pm$ SE		
Packed cell Volume (%)	40.95 $\pm$ 2.22	39.63 $\pm$ 2.57	29.4 $\pm$ 0.96*	4.72	5.97*
Haemoglobin(g/dl)	8.6 $\pm$ 1.26	7.7 $\pm$ 0.49	6.7 $\pm$ 0.4*	2.66	3.10*
Erythrocyte count ( $\times 10^6/\text{mm}^3$ )	5.72 $\pm$ 0.46	4.81 $\pm$ 0.34	3.39 $\pm$ 0.37*	2.38	6.5*
Total leucocyte count ( $\times 10^3/\text{mm}^3$ )	8.4 $\pm$ 0.37	8.34 $\pm$ 0.99	9.3 $\pm$ 0.46	0.77	1.51

\*P < 0.05 (Significant)

## Summary

Haematological studies of coccidia infected rabbits revealed reduction in the values of PCV, haemoglobin and erythrocyte count and a slight increase in the leucocyte count when compared to healthy animals.

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## References

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