

# IMMUNOLOGIC CHANGES IN THE SPLEEN OF RABBITS IN RESPONSE TO ANTIGENS OF *HAEMONCHUS CONTORTUS* FEMALE (NEMATODA: TRICHOSTRONGYLIDAE)

A functional spleen is necessary for the animal to overcome various infections. This is attributed to the phagocytic activity of spleen cells and their ability to produce antibodies. Splenectomized animals are unable to overcome infections (Phillips R. S., Parasitology 59:

et al. (J. Biol. Chem. 193: 265—275, 1951). Antigens were injected according to the schedule given in Table 1. About two months after the last injection, the rabbits were dissected and their spleen was removed and fixed in Bouin's fixative. Paraffin sections cut at 7  $\mu$ m

**Table 1.** Schedule of injections

Injection No.	Dose (ml)	Protein content (mg)	Route	Date
I	0.5	1.0	subcutaneous	28. 12. 78
II	0.5	1.0	intramuscular	4. 1. 79
III	0.75	1.5	intramuscular	11. 1. 79
IV	0.75	1.5	intramuscular	18. 1. 79
V	1.5	3.0	intramuscular	1. 2. 79
VI	1.5	3.0	intramuscular	8. 2. 79
VII	1.5	3.0	intramuscular	15. 2. 79

637—648, 1969, Hussein S. H., Exp. Parasitol. 47: 1—12, 1979). Whenever a foreign particle is introduced within an organism, it leads to the production of antibodies. This is accompanied by marked changes in the lymphoid organs, spleen being one of them.

The present communication deals with the immunologic changes in the spleen of rabbits in response to antigens of female *Haemonchus contortus* (Nematoda: Trichostrongylidae). Antigens of adult females of *H. contortus* were prepared by homogenization, followed by sonication. After centrifugation, the supernatant was used as antigens and the protein content was determined by the method of Lowery

were stained with haematoxylin and eosine.

The study of sections showed hyperplasia of reticuloendothelial cells and duplication of red pulp. Haemosiderin pigment was also observed. A few eosinophils and neutrophils were also seen at the cortical region.

Antibodies being proteins, their synthesis is similar to that of other proteins and hyperplasia of reticuloendothelial cells indicates increased protein synthetic activity.

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