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DICTYOCAULUS FILARIA: WHOLE BLOOD COAGULATION TIME IN THE INFECTED SHEEP

R. L. SHARMA, T. K. BHAT and D. N. DHAR
Regional Research Centre, Indian Veterinary Research Institute, Srinagar 190 005, India.

SINCE 1975, this centre has been raising *D. filaria* producer lambs for production of a radiation-attenuated vaccine for immunoprophylaxis of this disease in the enzootic areas of our country. During the useful patency phase of disease, it was observed that the blood of infected lambs became cyanotic and had a prolonged coagulation time (CT). A study was therefore undertaken to find out any correlation between the onset and severity of the disease and the above observation.

Fifteen male lambs of Nali breed were randomly distributed into two groups of ten (infected) and five (control). Their whole blood CT was recorded every week by the capillary tube method¹ up to eleven weeks post-infection (PI). A positive correlation was observed between increased CT and the progress of the disease up to the eighth week of infection. The whole blood CT significantly increased from the second week PI and maintained a plateau after the eighth week. A high blood CT (> 280 sec) along with high LPG during the corresponding period indicated grave prognosis of the infected animals.

Three infected animals remained under observation beyond the eleventh week and it was observed that the whole blood CT value did not return to normal even after 70 weeks of infection. On screening for faecal larval counts, the animals were

found to be in the carrier phase of the disease.

Increased whole blood CT has been reported in several pathophysiological conditions viz severe liver disease, thrombocytopenia and advanced stage of disseminated intravascular coagulation². However, there seems to be no previously known parasitic disease of domesticated animals wherein whole blood CT has been observed to increase significantly³. The prolonged whole blood CT in *D. filaria* infection may be due to alveolar hypoventilation resulting in a persistent generalized hypoxia and hypoxaemia in the host. Anoxaemia has been reported to be the cause of failure in clotting mechanism³. The utility of this parameter vis-a-vis LPG and worm establishment in *D. filaria* infection, for evaluating the disease status of sheep in the enzootic areas of our country, is presently being investigated.

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22-25 DIAZACHOLESTEROL-DI-HCl: AN EFFECTIVE INSECT GROWTH REGULATOR FOR *DYSDERCUS SIMILIS*

AMARJIT KAUR, S. SABITA RAJA,
S. S. THAKUR and B. KISHEN RAO
*Department of Zoology, Osmania University,
Hyderabad 500 007, India.*

INSECTS require a dietary source of sterol for normal growth, metamorphosis and reproduction¹, and this essential sterol serves as a precursor of the moulting hormone ecdysone. Phytophagous insects must derive most, if not all, of its essential cholesterol through the alkylation of phytosterol². The conversion of phytosterol (β -sitosterol) to cholesterol can readily be blocked and this interference severely inhibits larval growth and metamorphosis³⁻⁶. This study demonstrates the effects of 22-25 diazacholesterol-D₁HCl on the growth and reproduction of *Dysdercus similis*.