



# HOKKAIDO UNIVERSITY

|                  |   |
|------------------|---|
| Title            | EXPERIMENTAL STUDY ON CELL-MEDIATED IMMUNITY IN DOGS SECONDARILY INOCULATED WITH CANINE TRANSMISSIBLE SARCOMA |
| Author(s)        | MIZUNO, Shinya  |
| Citation         | Japanese Journal of Veterinary Research, 35(2), 139-139   |
| Issue Date       | 1987-04-30  |
| Doc URL          | <a href="https://hdl.handle.net/2115/3056">https://hdl.handle.net/2115/3056</a>                               |
| Type             | departmental bulletin paper   |
| File Information | KJ00002374498.pdf   |



EXPERIMENTAL STUDY  
ON CELL-MEDIATED IMMUNITY IN DOGS SECONDARILY INOCULATED  
WITH CANINE TRANSMISSIBLE SARCOMA

Shinya MIZUNO

*Department of Veterinary Surgery  
Faculty of Veterinary Medicine  
Hokkaido University, Sapporo 060, Japan*

In the present study, the role of cell-mediated immunity was investigated histologically and immunologically in dogs secondarily inoculated with canine transmissible sarcoma.

The results were summarized as follows:

- 1) Appearance of palpable tumor nodules was detected on the 3rd day after subcutaneous secondary inoculation (*s.i.*). Logarithmic growth of the tumor, which were observed at the initial inoculation, was not observed. The tumor began to regress on the 6th day and disappeared approximately on the 15th day after *s.i.*
- 2) Lymphocytes were infiltrated markedly into tissue of the tumor from the 6th day after *s.i.*, and the tumor cells were scattered around them. As most of the lymphocytes expressed thymocyte-antigen, they were considered as T lymphocytes.
- 3) Hematocrit value, total protein value and number of erythrocytes were unchanged before and during the course of this study after *s.i.*. Number of lymphocytes in peripheral blood increased gradually and the A/G ratio decreased slightly after *s.i.*
- 4) The numbers of thymocyte-antigen and surface immunoglobulin positive lymphocytes in peripheral blood were gradually increased, but the proportions of them were unchanged after *s.i.*
- 5) The percentage of ANAE positive lymphocytes in peripheral blood decreased significantly, especially at the 6th and the 12th day, and it recovered at the 15th day after *s.i.*
- 6) Blastogenicity in peripheral blood lymphocytes against three mitogens (PHA, ConA, PWM) were elevated strikingly, respectively, on the 3rd and the 6th day after *s.i.* by the <sup>3</sup>H-thymidine incorporation method.

The above results suggested that T lymphocytes may play an important role in rapid regression of canine transmissible sarcoma observed in secondary inoculation.