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DYNAMICS OF ALPHA-NAPHTHYL ACETATE ESTERASE POSITIVE  
LYMPHOCYTES IN PERIPHERAL BLOOD OF DOGS WITH  
CANINE TRANSMISSIBLE SARCOMA

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Alpha-naphtyl acetate esterase (ANAE) positive lymphocytes were estimated in the peripheral blood in canine transmissible sarcoma (CTS) of initially and repeatedly inoculated mongrel dogs.

The results are summarized as follows.

1. In the CTS of dogs with primary inoculation, the survival period of the tumors was divided into three groups: short-term (4–5 weeks), middle-term (8–9 weeks) and long-term (more than 10 weeks).
2. In the short-term group, the percentage of ANAE positive lymphocytes decreased at the time of the tumor appearance, followed by an increase a week after the inoculation. The positive percentage decreased again two to six weeks after the inoculation, then it gradually recovered to the pre-inoculation level with regression of the tumor.
3. In the middle- and long-term groups, the percentages of ANAE positive lymphocytes decreased to the lowest level two to four weeks after the inoculation, and after that, they showed a tendency to recover with mild fluctuation.
4. With the second inoculation of dogs after over 100 days from the CTS primary inoculation, the percentages of ANAE positive lymphocytes fell to a minimum level a week later, followed by a rise. In the cases of less than 86 days after the primary inoculation, the percentage of positive lymphocytes gradually rose after the repeated inoculation.
5. In the case of third and fourth inoculations, the percentages of ANAE positive lymphocytes in the dogs inoculated after the longer period declined two or three weeks later, and then rose. However, those in the shorter period were relatively stable.