

Spontaneous autologous erythrocyte-rosette formation of lymphocytes from cerebrospinal fluid of a dog with canine distemper.

ABSTRACT

An adult female crossbred dog, with pyrexia, ocular, neurologic and respiratory problems suggestive of distemper, was observed for 28 days. Marked lymphopenia was present on days, 8, 12, and 24, and myoclonus of the fore- and hind-limbs was seen on day 22. At day 24, a cytopathogenic agent with paramyxovirus morphology was isolated from peripheral blood mononuclear cells by co-cultivation with Vero cells. On day 28, cerebrospinal fluid was found to contain 82.7% of lymphocytes and 10% monocytes. About 19% of these lymphocytes formed spontaneous autologous erythrocyte-rosettes. The demonstration of such rosettes (at 4-5 times the level normal for dogs) is unusual. It is possible that the rosette test may be specific for distemper infection. This technique must be further investigated to determine if it can be used as a specific diagnostic test for distemper in dogs.

Keyword: Distemper, erythrocyte-rosettes