

Gavazza, A et al., Association Between Canine Malignant Lymphoma, Living in Industrial Area, and Use of Chemical by Dog Owners. Journal of Veterinary Internal Medicine. 15:3:190-195, 2001.

Abstract:

A case-control study was carried out to determine whether residential exposure to environmental pollutants increased risk for canine lymphoma in pet dogs. One hundred one cases with cytologically or histologically confirmed lymphoma diagnosed at a veterinary teaching hospital between the middle of 1996 and the middle of 1998 were examined. Controls were obtained by choosing twice the number of dogs without neoplastic disease, with overlapping distributions of province of residence, age, sex, and breed. Information regarding animal management, residence type, professional or hobby use of chemicals by owners, and treatment with herbicides or other pesticides in the area frequently visited by the dogs was obtained with a multiple-choice questionnaire by telephone interview. Two variables were positively and independently associated with the disease, namely residency in industrial areas (odds ratio [OR]; = 8.5; 95% confidence interval [CI], 2.3–30.9) and use of chemicals by owners, specifically paints or solvents (OR = 4.6; 95% CI, 1.7–12.6). A significantly lower value of the mean age of disease onset was found in the group of dogs at risk in comparison with the group of all other dogs (6.1 ± 0.4 years, $n = 36$ versus 7.5 ± 0.4 years, $n = 65$, respectively; $P = .008$). Variables describing animal care and pesticide use were either not associated with the disease or were uninformative. We suggest that canine lymphoma may be considered a sentinel of potentially hazardous situations for humans, because of the relatively short latency between exposure and disease onset.