

## **Evidence of Exposure to Canine Vector-Borne Pathogens among Hunting Dogs from South Korea**

**Sun Lim, SeungRyong Lee, ShinHyung Cho, Peter Irwin, ChaiYong Lee,  
and SungShik Shin\***

*Division of Parasitology, Chonnam National University, Gwangju, Korea*

*Division of Tropical and Endemic Parasitic Diseases*

*National Institute of Health, Korea Center for Disease Control and Prevention, Seoul*

*Australasian Centre for Companion Animal Research, Division of Health Sciences, Murdoch  
University, Australia.*

**Purpose:** A population of 125 dogs actively involved in either wild boar or pheasant hunting in the southwestern area of the Korean Peninsula was tested serologically for evidence of exposure to selected arthropod borne pathogens.

**Materials and Methods:** Whole blood samples were tested by enzyme-linked immunosorbent assay (ELISA) for *Anaplasma phagocytophilum*, *Borrelia burgdorferi*, and *Ehrlichia canis* antibodies and for *Dirofilaria immitis* antigen.

**Results:** Seropositivity to at least one pathogen was found in 43 (34.4%) dogs. Antigens to only *D. immitis* were detected in 27 (21.6%) dogs while antibodies to only *A. phagocytophilum*, *E. canis* and *B. burgdorferi* were detected in 21 (16.8%), 10 (8.0%) and 4 (3.2%) dogs, respectively. Seroreactivity to two organisms were found in 8 (6.4%) dogs. One dog showed seropositive to *A. phagocytophilum*, *E. canis* and *B. burgdorferi*.

**Conclusion:** This study strongly indicates that the exposure to arthropod-borne rickettsial pathogens as well as to *Dirofilaria immitis* is common among hunting dogs from South Korea.

Key words: *Dirofilaria immitis*, *Anaplasma phagocytophilum*, *Borrelia burgdorferi*, *Ehrlichia canis*

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\*Corresponding author: sungshik@jnu.ac.kr