Internal Medicine

Association between breed, gender and age in relation to cardiovascular disorders in insured dogs in Japan

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2016 78 2 p. 347-350

DOI https://doi.org/10.1292/jvms.15-0171

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The association between breed, gender and age and cardiovascular disorders in the insured dog population in Japan was investigated, using multiple logistic regression analysis and data from 299,555 dogs insured between April 2010 and March 2011. The overall annual prevalence of cardiovascular disorder diagnosis was 2.1%. Using the Miniature Dachshund as the reference breed, Cavalier King Charles Spaniel had the highest odds of cardiovascular disorder with a ratio of 16.2 (95% confidence interval: 14.4–18.2), followed by Maltese, Pomeranian, Chihuahua and Shih Tzu. Male dogs had increased odds of 1.2 (1.1–1.3). The dogs had increased odds of having cardiovascular disorder by 1.5 times as their age increased by one year.
Here we discuss chronic kidney disease (more specifically, cardio-renal disorders), which is more prevalent in the cavalier King Charles spaniel than in most other breeds. In a separate article, we discuss another kidney disorder prevalent in the CKCS, called xanthinuria, which are crystals or sediment in the dogs' urinary tract. Even in dogs with chronic kidney disease, dietary protein does not appear to contribute to kidney damage. However, in chronic kidney disease, there can be an accumulation of byproducts of protein metabolism, which may contribute to uremic signs. Significant risk factors included increasing age, being insured, and certain breeds (Cocker Spaniel, Cavalier King Charles Spaniel). Cardiac disease was a significant comorbid disorder.