

TITLE: Prevalence of Radiographic Osteoarthritis and Associated Clinical Signs in Young Dogs

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INTRODUCTION: The aim of this study was to determine the prevalence of OA and associated clinical signs in young dogs.

METHODS: Owners (n=320) of dogs aged 8 months to 4 years from a single practice, were contacted to participate (regardless of dog's health status). Owners were contacted in random order within each of 4 age bands (8-18, 18.1-28, 28.1-38, 38.1- 48months). Clinical and orthopedic examinations were performed. Each joint was scored for pain reactions using 5-point scale (0-4). Orthogonal radiographs of all joints and the spine were made under sedation. Each joint was scored for radiographic OA (rOA) severity on an 11-point scale by 2 investigators. Clinical OA (cOA) was defined as an overlap of rOA and joint pain in ≥ 1 joint. Owners completed OA questionnaires.

RESULTS: Owners of 123 dogs agreed to participate. Overall, 39.8% (49/123) of dogs had rOA in ≥ 1 joint, and 16.3% (20/123) or 23.6% (29/123) dogs had cOA, depending on the cut-off value of joint pain - moderate (2), or mild (1), respectively. Based on OA questionnaires, owners of dogs with cOA observed signs of impairment in approximately 30% of cases (regardless of joint pain score cut-off) but only 12.5% of the dogs were treated. Affected joints in descending order of frequency were elbow, hip, tarsus, and stifle. Prevalence of rOA was increased with age, body weight and body condition score.

SIGNIFICANCE: Radiographically visible OA is very common in young dogs, and 40-60% of dogs with rOA had cOA. However, OA-pain appears underdiagnosed and undertreated in young dogs.

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