

ANGULAR LIMB DEFORMITIES AFFECTING THE CANINE RADIUS AND  
ULNA: CLASSIFICATION USING THE CENTER OF ROTATION OF  
ANGULATION METHOD

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ABSTRACT

We hypothesized that 1) antebrachial ALDs would be more complex with respect to multiplicity in chondrodystrophic dogs, and 2) more complex ALDs would exhibit a higher incidence of concurrent joint radiographic disease. Medical records from 2006 to 2013 were searched and cases included of dogs diagnosed with thoracic limb lameness attributable to antebrachial ALDs with orthogonal radiographs or CT scans of the affected antebrachium. Classification of the deformity in the frontal plane, and the presence of sagittal plane angulation, torsion, and adjacent joint radiographic disease were determined and compared. Thirty-five uniapical, 70 biapical, and 1 multiapical deformities in the frontal plane were identified. The incidence of biapical deformities was statistically higher in chondrodystrophic versus non-chondrodystrophic dogs ( $P = 0.02$ ). When breeds were combined, biapical deformities were associated with a significantly higher incidence of adjacent joint radiographic disease ( $P = 0.049$ ); more frequently resulting in elbow disease ( $P = 0.022$ ). Overall, 82% of the 106 limbs had radiographic evidence of either elbow or carpal joint disease at the time of presentation. In dogs with limb deformities, particularly chondrodystrophic dogs, biapical deformities are common. Adjacent joint radiographic disease should be evaluated in all patients presenting for antebrachial deformities.