



Computed Tomography Report

Final Report

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History: Bilateral elbow degenerative joint disease, suspect elbow dysplasia.

Findings: Contiguous 1 mm axial images using a 0.5mm spacing, were acquired of both elbows simultaneously. Separate reconstructions of each individual elbow joint were generated from the original images. Sagittal and coronal reformatted series of each elbow were then generated from the individual elbow reconstructions.

Left elbow: Severe periarticular proliferation is present involving the medial coronoid process. A large, triangular fragment of bone is identified along the axial margin of the cranioproximal aspect of the medial coronoid process. This fragment measures approximately 7 mm in length and 3 mm in width. The radial incisure is irregular. Punctate lucencies are identified in the sclerotic subchondral bone of the ulnar trochlear notch. Severe subchondral sclerosis of the medial aspect of the humeral condyle is evident. Productive new bone formation is identified on the proximal margin of the anconeal process. Periarticular proliferation is present at the cranioproximal aspect of the radial head, lateral, medial, and cranial aspects of the humeral condyle, and the medial and lateral humeral epicondyles. Subcortical cystic changes are identified in the medial and lateral aspects of the humeral epicondyles. Supracondylar lysis of the humeral condyle is present cranially and caudally. There is thickening of the soft tissues surrounding the elbow joint. Severe caudal joint pouch swelling is evident. Elbow joint incongruity is present, particularly involving the articulation of the humerus and ulna. A slight step defect is present between the articular surfaces of the radius and ulna.

Right elbow: Similar changes as seen on the left are seen on the right however, the degree of osteoarthritis appears more severe on the right. There is an irregularly margined, large osseous body cranial and slightly axial to the blunted, irregular, and misshapen medial coronoid process. This osseous body likely originates from the medial coronoid process. At its largest, this body measures approximately 1 cm x 5 mm. In addition to all the changes described for the left elbow, there is a sclerotic appearance to the medullary cavity of the distal humeral diaphysis.

Imaging Diagnosis:

1. Severe, bilateral osteoarthritis of the elbows, right greater than left. This is most likely secondary to elbow dysplasia to include chronic fragmentation of the medial coronoid processes, inherent elbow joint incongruity and possible osteochondrosis of humeral condyles (medial aspects).
2. Intramedullary sclerosis of the distal right humerus. Panosteitis or medullary infarcts are considered.

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