



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT**  
Vikky Sandhar

**SPECIES**  
Canine

**BREED**  
Large Munsterlander

**SEX**  
FS

**AGE**  
9 Years

**INTERPRETED BY**  
Nele Eley, DVM  
Dr. med. Vet. DipECVDI

Presented to the Toronto Animal Health Partners Surgery Service for evaluation of bilateral elbow degenerative joint disease. In 2014, Vikky presented to the 404 Referral Hospital for removal of a fragmented medial coronoid process (MCP) on the right forelimb. In 2015, she had surgery to remove a loose fragment on the lateral aspect of the right forelimb. In May 2022, Vikki had a left TPLO performed with a traveling surgeon. In May 31st, 2023, Vikky presented to College Manor Veterinary Hospital Rescue for a right forelimb injury that happened two weeks prior to presentation. Owners initially tried strict rest and metacam which had positive results. Gabapentin causes heavy sedation on Vikky, therefore was not used. Radiographs were performed on the day and noted severe DJD of right elbow with a large joint mouse at the distal cranial humerus M3 bony proliferation lateral and medial distal humerus. There was also bony proliferation lateral and medial of the distal humerus and on the lateral and medial proximal radius. Vikky is otherwise very active and still have high energy. She seem to be less responsive to meloxicam and continues to be lame in the right forelimb. She tends to be more lame after long rest and is less obvious on walks. Owners have been resting the limb and restricting activity since May 31st, but does not seem to show any improvement. She also is hesitant to go for swims nowadays, but that was one of her favourite activities. Vikky is currently on Librela for the past two month (4 total doses) with uncertain response. However, recently she has been toe touching after injuring herself. She was dispensed with metacam and amantadine for management. Metacam gives her GI upset. Gabapentin makes her anxious and nervous. Amantadine doesnt seem to be helping. Vikky also has laser treatment once weekly which seems to help. Hx of blastomycosis in 2017 - treatment with chronic use of maropitant with famotidine lead to secondary GI sensitivity after treatment. Estrogen responsive incontinence in 2016 - treated with propalin. Most recent bloodwork: January 20, 2023 - unremarkable 4DX negative Abnormal PE/Chem/CBC/UA Results: Painful on elbow manipulation on flexion. mild LHL atrophy Reduced ROM L and R elbow

**COMPUTED TOMOGRAPHIC STUDY OF THE SHOULDERS, ELBOWS, & CARPI**

Plain study in soft tissue and bone windows available for review.

**HOSPITAL NAME**

Animal Health Partners

**COMPUTED TOMOGRAPHIC FINDINGS**

**Right Elbow**

**REFERRING VET**

Dr. Debbie Reynolds

The patient has a history of right elbow arthroscopy with partial Coronoidectomy and other right elbow surgery.

An intercondylar fissure line is seen between the medial and lateral humeral condyles in the right elbow. The fissure is surrounded by sclerosis.

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A zone of mixed osteolytic and osteoproliferative changes is seen in the lateral and medial humeral condyles adjacent to the fissure with significant bone loss and multiple incomplete fissure lines in the medial humeral condyle. A large amount of periarticular osteophytes is noted.

There is palisading periosteal new bone formation in the distal humerus.

**DATE**

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Multiple large periarticular osteophytes are present as well as multiple rounded and polygonal shaped mineralized bodies, some of which are spherical with corticomedullary bone pattern. The largest one is seen cranial to the distal humerus and measures approximately 10mm in diameter.



**PATIENT** There appear to be multiple small articular gas inclusions.

Vikky Sandhar The medial coronoid process is short and stunted.

The medial humeral condyle's subchondral bone surface is mildly flattened.

**SPECIES**  
**Left Elbow**

Canine

Deformity and heterogeneous reduction in attenuation are seen in the left medial coronoid process. There is no evidence of subchondral bone defects. An intercondylar fissure is not seen in the left elbow.

**BREED**

Large Munsterlander

A large amount of periarticular osteophytes is noted as well as multiple spherical mineralized bodies with corticomedullary bone pattern, one of which measuring approximately 10mm in diameter and is in the same position cranial to the distal left elbow as in the right thoracic limb.

**SEX**

**Shoulders**

FS

Mild osteoarthritis changes of both shoulder are seen.

**AGE**

Isolated ossicles of the infraglenoid tubercles are present bilaterally as well as minimal bicipital groove exostosis.

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**Carpi**

**INTERPRETED BY**

The carpal joints present within normal limits.

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Moderate spondylosis deformans and mild disc protrusions are present in the deep cervical spine between C5/6 & C6/7.

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**COMPUTED TOMOGRAPHIC DIAGNOSIS**

Animal Health  
Partners

- History of right elbow arthroscopy with partial medial Coronoidectomy.
- Incomplete ossification of the humeral condyles with intercondylar fissure of the right elbow.
- Mixed osteolytic/osteoproliferative lesions of the distal right humerus with suspect multiple subacute to chronic fissures in the right medial humeral condyle.
- Arthropathy of the right elbow with severe osteophytosis and osteochondromatosis.
- Presence of intraarticular gas in the right elbow: iatrogenic versus gas forming bacteria.
- Severe left elbow osteoarthritis and osteochondromatosis.

**REFERRING VET**

Dr. Debbie Reynolds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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The chronic intercondylar fissure of the right elbow is likely a consequence of incomplete ossification of the humeral condyles which is common in this breed. The mixed osteolytic and osteoproliferative changes of the humeral condyles can be a consequence of subacute fracture and bone production in an attempt to stabilize the bone. However, with the presence of articular gas and provided that this is not a result of articular injection or aspiration, septic arthritis with gas forming bacteria should be considered a potential. Nevertheless, the biomechanical stability of the bone has to be considered reduced. Further definition by means of aspiration and analysis of synovia is recommended if not performed in order to rule out septic arthritis. Open reduction and internal fixation of the intercondylar fissure may be required, however, presence of infection

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should be ruled out beforehand.

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The flattening of the medial humeral condyle indicates potential presence of cartilage breakdown in the medial compartment which is rather safe to be assumed here.

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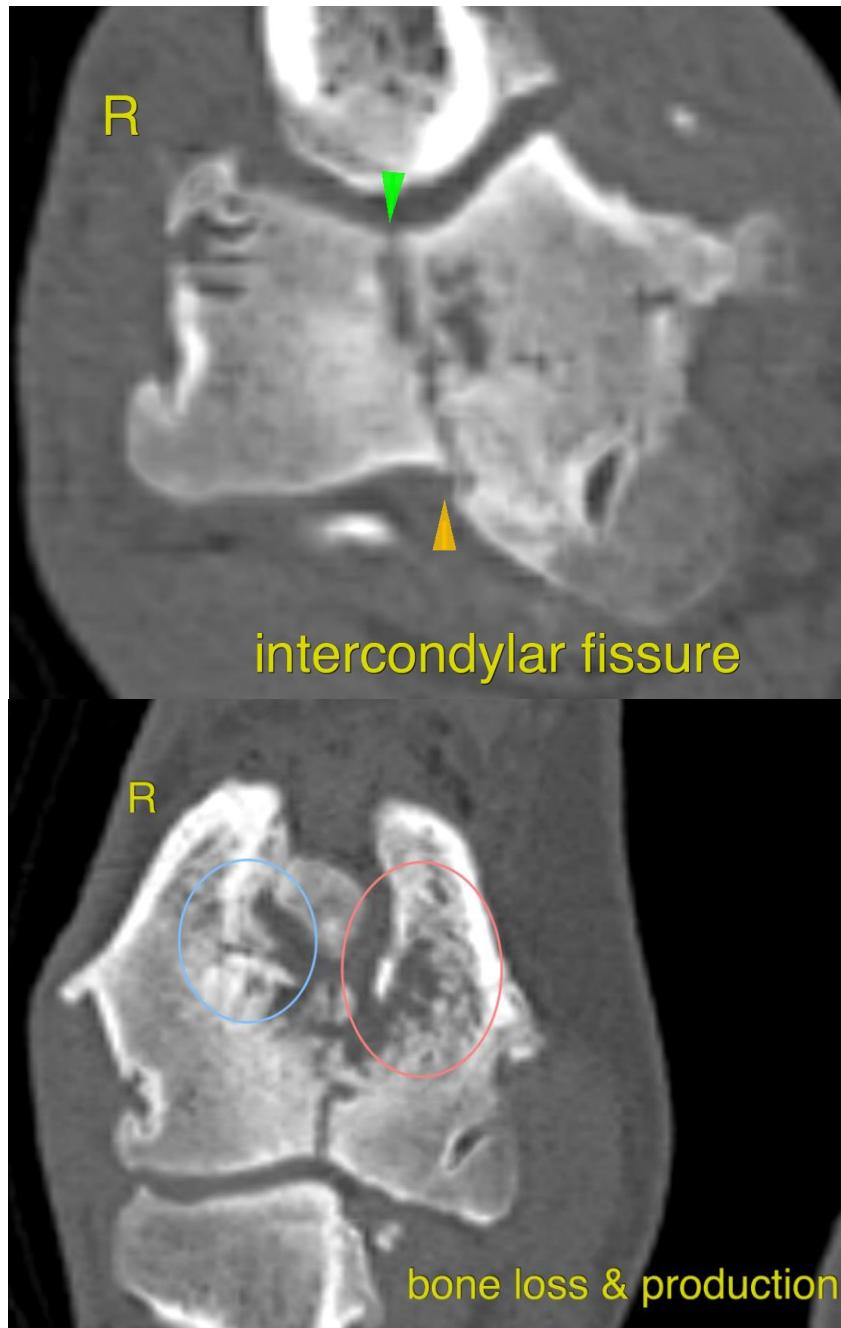
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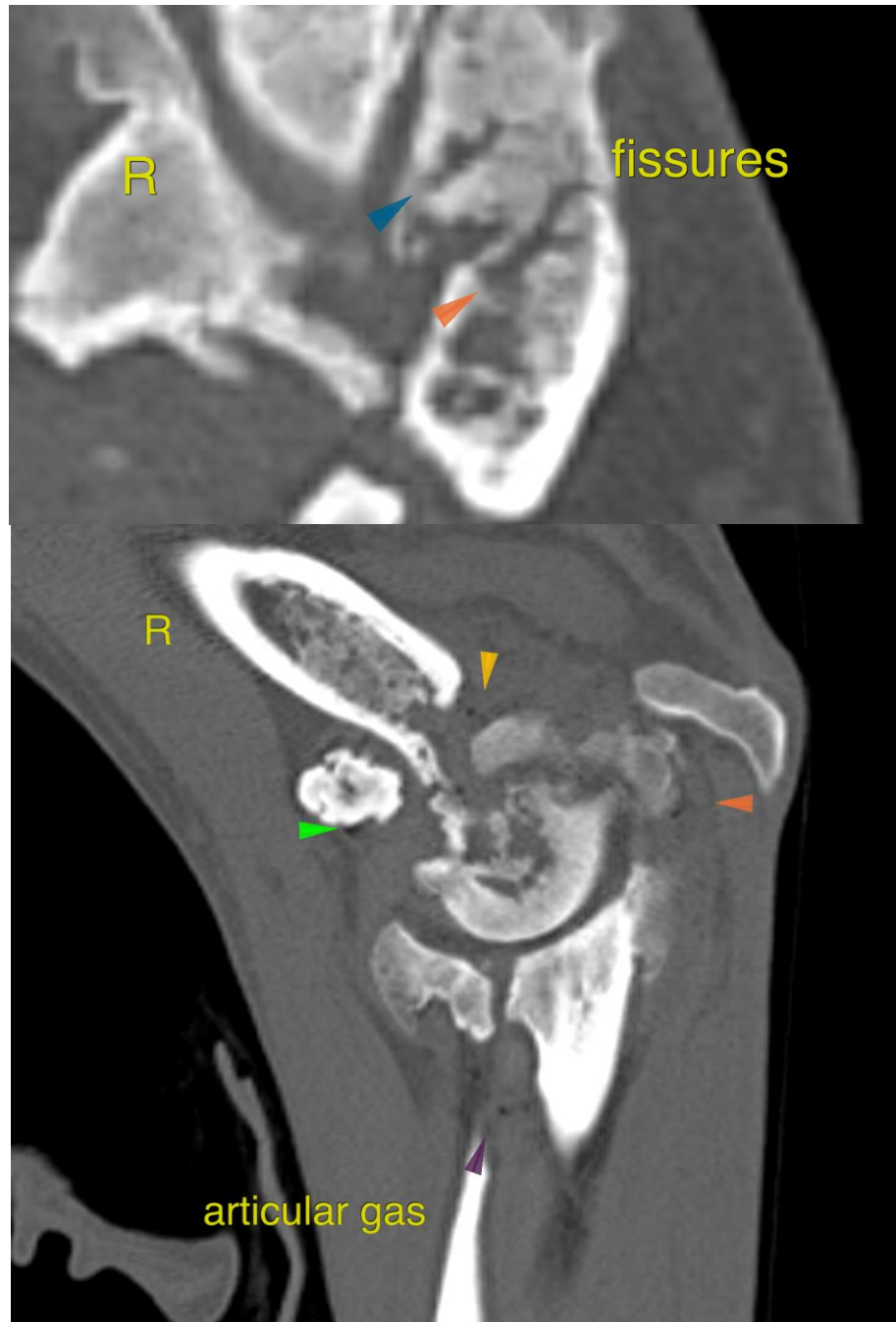
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**PATIENT**

Vikky Sandhar

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**SPECIES**

Canine

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