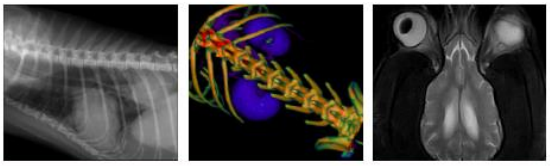


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Axel Singh

SPECIES

Canine

BREED

German Shepherd

SEX

Male

AGE

3 Years

INTERPRETED BY

Nele Eley, DVM
Dr. med. Vet. DipECVDI

HOSPITAL NAME

Colyton Veterinary Hospital

REFERRING VET

Chris Papantonio

INVOICE

51483

DATE

4-12-22

PRESENTING CLINICAL SIGNS

Presented in March due to lameness on LHL - Grade 3/5 lame at the time. Aggressive so needed to be sedated to examine. Left stifle was thickened, no cranial drawer felt but radiographs taken suggested stifle effusion and an irregular opacity in proximal tibia. The dog was placed on NSAIDs at the time. Dog presented a week later now non weight bearing lame. The dog was taken to surgery and an arthrotomy was performed to examine the cruciate which was intact. A sample of the joint capsule was taken for histopathology, along with some soft tissue overlying the medial tibia. 3 or 4 core bone biopsies were taken with Jamshidi needle to get both bone and soft tissue biopsies of the proximal tibia. Histopath results suggested only inflammatory cells but they couldn't exclude neoplasia. The dogs leg has progressively got thicker and more swollen with muscle wastage from disuse. Ct scan was performed today - Native and Post IV Contrast of the limb and also Native scan of the chest to rule in/out possible metastasis. Abnormal PE/Chem/CBC/UA Results: Bone marrow: periosteal new bone, with periosteal lymphoplasmacytic inflammation, marrow mesenchymal population with mild osteoclastic resorption of bone - please see comment Left hind limb soft tissue: fragments of periosteal new bone with surrounding immature to mature fibrocollagenous connective tissue COMMENT Periosteal new bone formation is seen in both the bone marrow and the left hind limb soft tissue biopsies, along with lymphoplasmacytic inflammation in the periosteum. Less clear is the significance of a mesenchymal population within the marrow that is associated with mildosteoclastic resorption of bone. Mesenchymal neoplasia has not been excluded at this site however the biopsies are small and may not be representative, and it is not possible in my opinion to differentiate between reactive hyperplasia and neoplasia in this sample. Hypertrophic osteopathy may affect the tibia in dogs but usually does not involve the joints, and often other bones are affected. Osteomyelitis cannot be excluded at this site also but is less supported than other aetiology is at this time

COMPUTED TOMOGRAPHIC STUDY OF THE STIFLES & THORAX

Plain and post contrast studies of the stifles in soft tissue and bone windows and plain study of the thorax in soft tissue, bone, and lung windows available for review.

COMPUTED TOMOGRAPHIC FINDINGS

Stifles

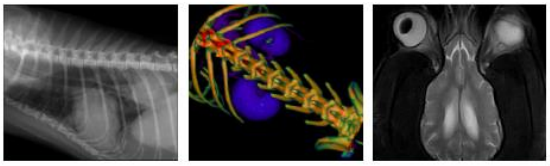
Severe atrophy of the left hind limb musculature is noted.

Permeative aggressive osteolysis of the left proximal tibial epiphysis and metaphysis is seen. The transition zone to the unaffected bone is long and indistinct and extends far down distally within the proximal and mid diaphyseal third of the tibia. Multiple cortical bone defects are seen as well as severe circumferential periosteal new bone formation and a contrast enhancing multilobulated soft tissue mass which presents spiculated new bone formation and appears to involve the enlarged popliteal lymph node. The left stifle joint presents moderate effusion and mild periarticular bone remodeling.

Moderate bilateral coxofemoral joint dysplasia and osteoarthritis are seen.

Thorax

The bony and surrounding soft tissue structures are within normal limits.



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The sternal, cranial mediastinal and tracheobronchial lymph nodes are small elongated with a normal short-to-long-axis-ratio is < 0.5, the attenuation and contrast enhancement pattern are uniform and considered within normal limits.

The cardiovascular structures including the pulmonary vasculature are within normal limits.

The bronchial tree presents with regular branching and tapers uniformly towards the periphery as expected, the bronchial walls are thin and smooth. The bronchus-to-artery ratio is within normal limits.

The lung parenchyma presents the expected architecture and attenuation behavior.

Moderate generalized dilation of the esophagus with mild precardial fluid accumulation is seen.

COMPUTED TOMOGRAPHIC DIAGNOSIS

- Monostotic aggressive osteolytic lesion of the left proximal tibia with regional lymphadenomegaly and severe disuse atrophy of the left hind limb musculature.
- Moderate bilateral coxofemoral joint osteoarthritis secondary to canine hip dysplasia.
- No evidence of pulmonary metastatic disease.
- Esophageal dilation: anesthesia related with gastroesophageal reflux versus megaesophagus - clinical monitoring advised.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The CT findings are unfortunately highly suggestive for a primary neoplasia of bone such as osteosarcoma, chondrosarcoma, fibrosarcoma, or other. The findings are not compatible with inflammation or bacterial osteomyelitis. Fungal osteomyelitis can theoretically not be ruled out as a differential diagnosis should the patient have been to an endemic area. Other type of neoplasia such as round cell would be a possibility as well. However, the changes should be considered neoplastic until proven otherwise. Involvement of the left popliteal regional lymph node is suggested by the CT findings.

No evidence of pulmonary metastatic disease was found at this point.

The presence of bilateral coxofemoral joint dysplasia and osteoarthritis needs to be considered when palliative treatment procedures such as amputation are planned.

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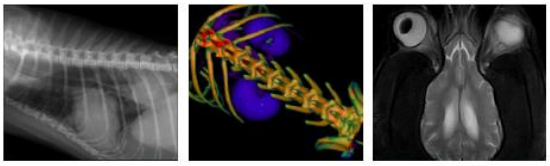

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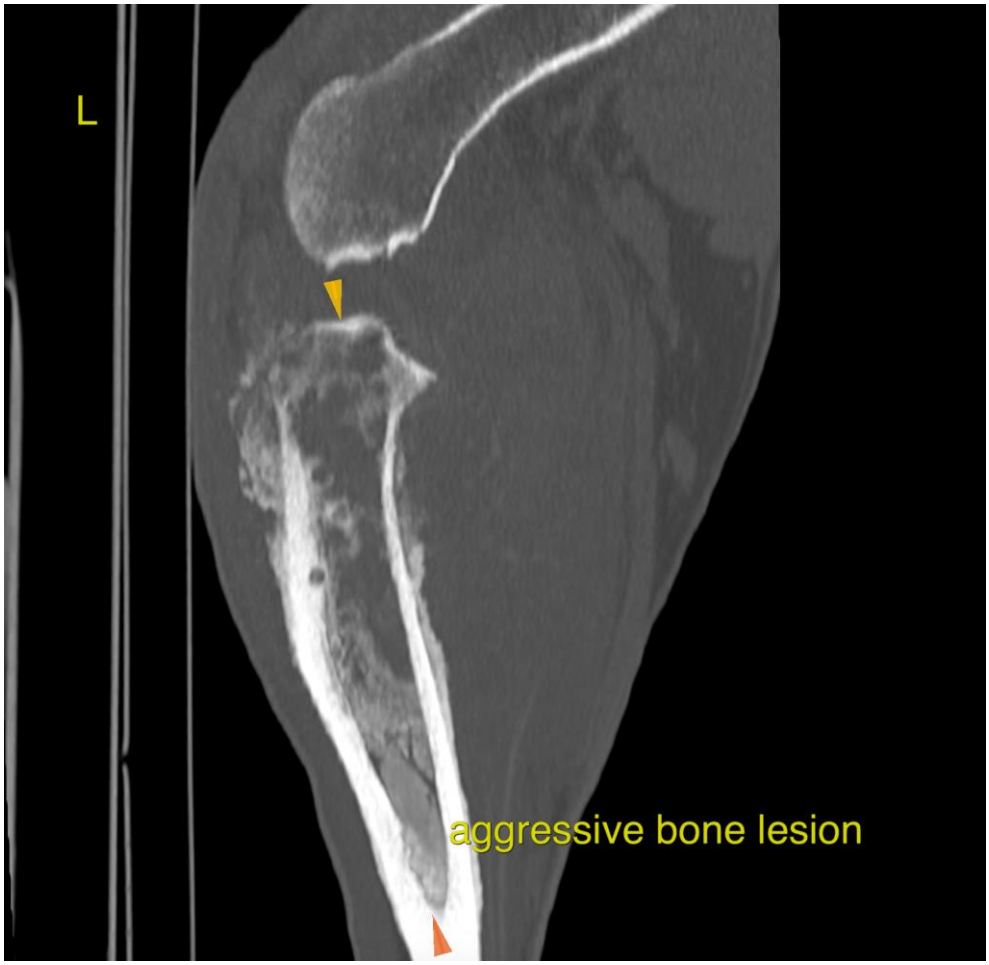

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Nele Eley, DVM, Dr. med. vet., DipECVDI
European Specialist in Veterinary Diagnostic Imaging, Cert. Radiology,
Senior lecturer University of Giessen, Germany, Veterinary Faculty, Department of Radiology
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