



**PATIENT**

Rosco Livingston

**SPECIES**

Canine

**BREED**

Daschund

**SEX**

MN

**AGE**

3 Years

**INTERPRETED BY**

Nele Eley, DVM  
Dr. med. Vet. DipECVDI

**HOSPITAL NAME**

Animal Health  
Partners

**REFERRING VET**

Dr. Stephanie Lovell

**INVOICE**

54450

**DATE**

10-5-22

**PRESENTING CLINICAL SIGNS**

3yo MN dachshund; reluctant to bear wt on both thoracic limbs. Generalized skeletal abnormalities on radiographs (age is known, but physes still evident in all vertebral bodies) suspicious for MPS (haircoat is unusually soft, limbs are all foreshortened, even for a dachshund), however genetic testing results were homozygous normal. reluctant to step down ~5-6 inches, discomfort on extension of both shoulders and both elbows. no neurologic deficits.

**COMPUTED TOMOGRAPHIC STUDY OF THE FRONT LIMBS**

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

**COMPUTED TOMOGRAPHIC FINDINGS**

Moderate generalized reduced bone mineral density is seen throughout the visible skeleton.

The long bones of the front limbs are severely stunted with cranial and medial curvature of the radius and moderate carpus valgus formation.

A moderate radioulnar step formation is seen in both elbows.

No other evidence of arthropathy of the elbows or shoulders is noted.

The mineralization of the epiphyses is reduced for both humeral heads.

The growth plates of the long bones in the front limbs are closed.

Square shaped shortening of all cervical vertebrae with open growth plates of all caudal and partial closure of the cranial vertebral end plates is seen.

**COMPUTED TOMOGRAPHIC DIAGNOSIS**

- Moderate reduced bone mineral density.
- Delayed growth plate closure throughout the visible spine with shortening of all visible vertebrae.
- Reduced longitudinal growth of the long bones in both front limbs with bilaterally symmetric moderate angular limb deformity in terms of radius curvus, cubital destruction, and carpus valgus.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The CT study reveals reduced longitudinal growth of the long bones as well as shortening of all vertebrae with delayed growth plate closure. Bilateral angular limb deformities with radius curvus, cubital destruction, and carpus valgus are seen. Differential diagnosis includes mucopolysaccharidoses, congenital hypothyroidism, osteogenesis imperfecta, and osteochondrodysplasia. Nutritional problems such as calcium/phosphorus imbalances, vitamin D hypovitaminosis, and renal disease such as congenital renal dysplasia or other should be ruled out. Multiple epiphyseal dysplasia is a theoretical but by far less likely potential.



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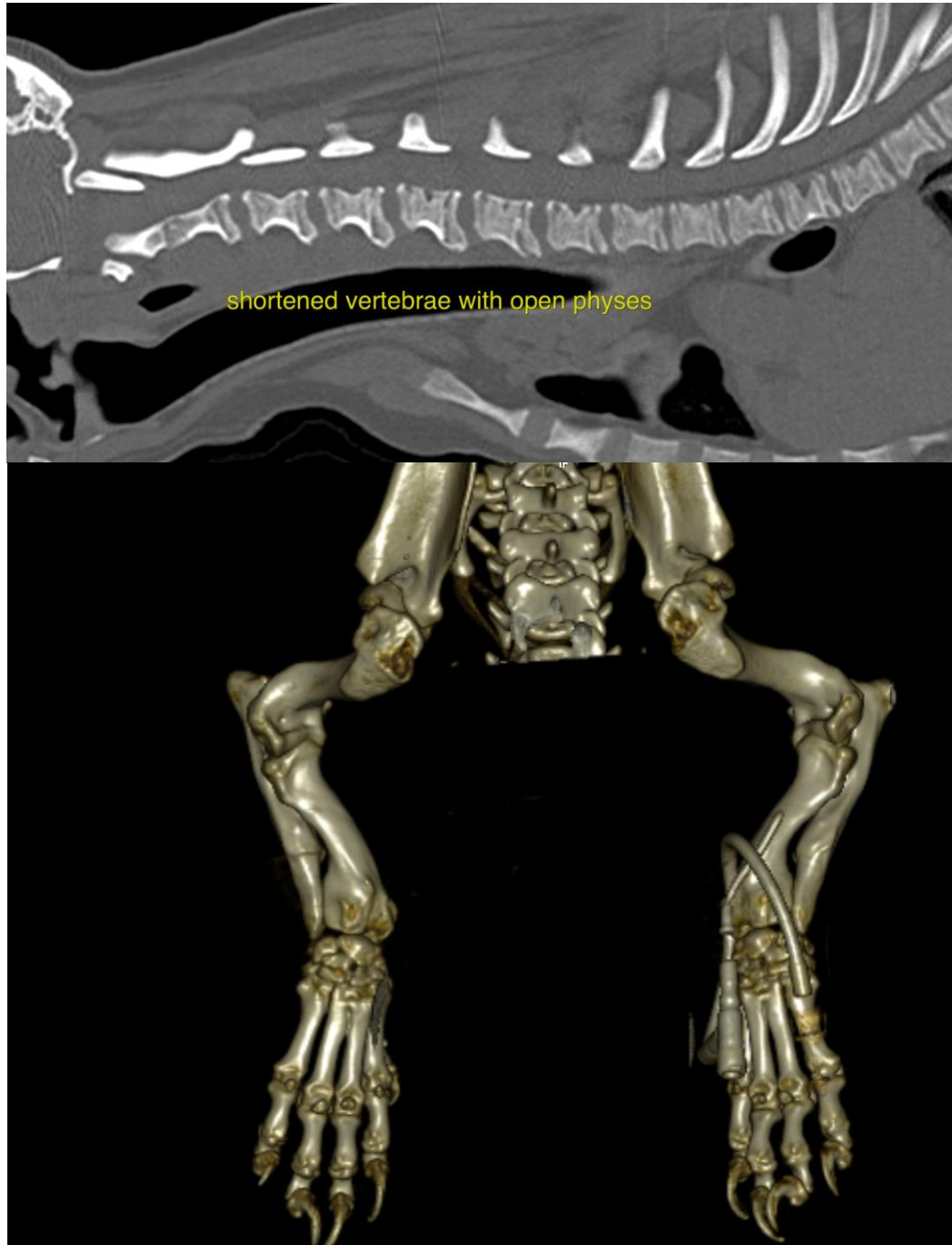
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**SPECIES**

Canine

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