



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Solo Sheriff  
**SPECIES** Canine  
**BREED** German Shepherd  
**SEX** Male  
**AGE** 5.5 Years

History: MAY 25, 2022 -- P PRESENTED FOR EVALUATION OF LEFT HIND LIMB, O NOTES HAS BEEN LIMPING SLIGHTLY FOR ABOUT 1 WEEK. P IS A WORKING K9 UNIT OFFICER AND TYPICALLY DOES NOT SHOW MUCH PAIN BUT CONTINUES TO GUARD/LIMP A LITTLE 3 radiographs including VD pelvic hip extended and lateral views of the pelvis and right and left femur and stifle regions dated May 25, 2022 are provided for review. The coxofemoral joints are subjectively normal. There is very mild left thigh muscle atrophy compared with the right. No osteophytes or other bone abnormalities are identified in the right or left stifle regions. The exposure settings optimized to evaluate the pelvis and lumbosacral regions and because of this the stifle joints are overexposed limiting the ability to detect or rule out stifle joint effusion. There is mild spondylosis deformans at the lumbosacral junction. Conclusion Spondylosis deformans at the lumbosacral junction consistent with degenerative disease. Concurrent disc protrusion at the lumbosacral junction causing asymmetrical impingement on left spinal nerves innervating the left pelvic limb could be the cause of the left pelvic limb lameness (causing a root signature). A soft tissue injury in the limb such as a tendon or muscle or ligament strain cannot be completely ruled out. Recommendations The clinical situation should determine the need for additional diagnostics. Spinal MRI evaluation would be necessary to determine if lumbosacral disc disease is causing spinal nerve compression but if medical/anti-inflammatory medication can control discomfort the value of spinal MRI evaluation is more questionable. If there is palpable instability or discomfort localized to the stifles additional radiographs centered and collimated on the stifles could be used to assess for or rule out more subtle soft tissue stifle abnormalities such as joint effusion if indicated by the clinical situation. Per Handler clinical signs seemed to improve slightly but not to the degree hoped for the duration of the rest regiment, K-Laser, and NSAIDS (Carprofen) treatment medical management schedule. Abnormal PE/Chem/CBC/UA Results:

**INTERPRETED BY**

Sebastian Schaub,  
 DVM Dr. med. vet.  
 DipECVDI

**COMPUTED TOMOGRAPHIC STUDY OF THE THORAX, ABDOMEN & HIND LIMBS**

A high-resolution plain CT study of the thorax and abdomen and a pre- and post-contrast CT study of the hind limbs is provided for review.

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Animal Emergency  
 Hospital Deland

**COMPUTED TOMOGRAPHIC FINDINGS**

**Thorax**

Multifocal mild spondylosis formation is seen along the thoracic spine. The intervertebral disc space T5/T6 is moderately narrowed, and the subchondral bone of the respective vertebral endplates presents with small crescent shaped defects

**REFERRING VET**

Dr. Johnson

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 is uniform and considered within normal limits.

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

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**PATIENT** Solo Sheriff  
 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 with randomly interspersed punctuate mineralization.

**SPECIES** Canine  
 The esophagus is mildly distended by gas and fluid – likely due to reflux from the stomach due to general anesthesia.

**Abdomen**

**BREED** German Shepherd  
 The serosal fat presents normal attenuation behavior. There is no evidence of peritoneal effusion or peritonitis. A small (<7 mm) granular mineralized ovoid shaped structure is seen between the stomach and the liver.

**SEX** Both kidneys present within normal limits for size, shape and organ architecture.

Male  
 The prostate is symmetrically significantly enlarged, the prostatic parenchyma is has a heterogeneous contrast enhancement pattern with small fluid attenuating roundish lesions. Sporadic punctuate mineralization of the prostatic parenchyma is appreciated.

**AGE** 5.5 Years  
 The adrenal glands are within normal limits for size, shape and organ architecture.

The liver presents with normal shape, even surface, uniformly attenuating parenchyma.

**INTERPRETED BY** Sebastian Schaub,  
 DVM Dr. med. vet.  
 DipECVDI  
 The spleen is prominent and presents rounded margins; the splenic parenchyma is homogeneous soft tissue attenuating.

The gallbladder contains a mild amount of sedimented hyperattenuating biliary sludge.

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 The pancreas is evenly contoured, the pancreatic parenchyma is homogeneous and presents uniform contrast enhancement.

The position, delineation, wall and content of the gastrointestinal tract are considered within normal limits throughout.

**REFERRING VET** Dr. Johnson  
 The vertebral endplates of the lumbosacral junction present moderate spondylosis formation including lateral spondylosis formation in the region of the neuroforamina, L>R. There is no relevant protrusion of the lumbosacral intervertebral disc.

**Hind Limbs**

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 In the right flank, cranial to the right iliac wing, an ovoid shaped soft tissue attenuating nodule is seen, measuring 14 x 9 mm in size.

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**PATIENT** Both coxofemoral joints present smooth osseous margins and congruent joint spaces, unremarkable. No abnormalities of the pelvis and its surrounding soft tissue structures are appreciated.

Solo Sheriff

Both stifle joints present smooth osseous margins and without signs of intracapsular swelling , unremarkable.

**SPECIES**

Canine

Both tarsal joints present mild to moderate osteophyte new bone formation. Ankylosis of the left lateral malleolus with the tibia is seen.

**COMPUTED TOMOGRAPHIC DIAGNOSIS**

**BREED**

German Shepherd

- Spondylosis formation along the lumbosacral junction with lateral new bone formation along the neuroforamina
- Degenerative osteoarthritis talocalcaneal joint
- Ankylosis distal segment of the left fibula with the tibia
- Prostatomegaly with small dystrophic mineralization
- Splenomegaly
- Non-specific subcutaneous nodule right flank
- Biliary sludge
- Chronic discopathy T5/T6 with Schmorls nodules of the respective vertebral endplates
- Small dystrophic mineralization cranial abdomen
- Spondylosis deformans
- Pulmonary osteomas
- No evidence of pulmonary metastatic disease

**SEX**

Male

**AGE**

5.5 Years

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DVM Dr. med. vet.  
DipECVDI

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The new bone formation along the extraforaminal course of the root of the left spinal nerve L7 might cause impingement and can be a source for pain if there is accompanying swelling of the respective nerve due to neuritis. Unfortunately, evaluation of the spinal nerve in this region is limited by lack of in image contrast. Local glucocorticoid application to the lumbosacral junction might be used as therapeutic diagnostic approach. MRI can be used as advanced imaging modality for evaluation of the spinal nerves of the lumbosacral junction.

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The main finding of both hind limbs is the degenerative osteoarthritis of the tarsal joints, acute insult might have activated local inflammatory response with pain.

**REFERRING VET**

Dr. Johnson

The splenomegaly is very likely a normal anatomical variant in the German shepherd dog that can be accentuated by pooling of blood secondary to general anesthesia. Potentials include nodular hyperplasia, extramedullary hematopoiesis, splenitis or less likely diffuse neoplastic invasion. In case of doubt, ultrasound guided FNA sampling can be used as advanced diagnostic tool.

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The enlarged prostate in the intact male dog is compatible with benign prostatic hyperplasia with intraprostatic cysts and small foci of dystrophic mineralization. The mineralization can be the result of sex hormone influence, prostatitis or neoplastic transformation (considered unlikely here).

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**PATIENT**

Solo Sheriff

**SPECIES**

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**BREED**

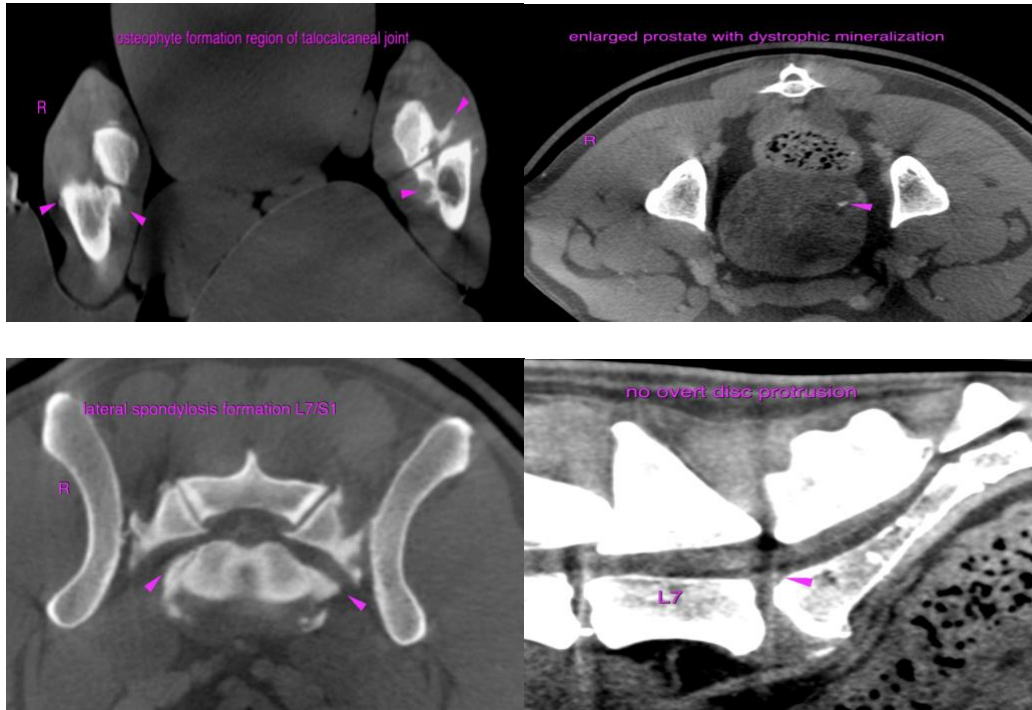
German Shepherd

**SEX**

Male

**AGE**

5.5 Years



**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.**

**INTERPRETED BY**

Sebastian Schaub,  
DVM Dr. med. vet.  
DipECVDI

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.

**HOSPITAL NAME**

Animal Emergency  
Hospital Deland

**Sebastian Schaub**, Sebastian Schaub, DVM, Dr. med. vet. DipECVDI  
sebast.schaub@gmail.com

**REFERRING VET**

Dr. Johnson

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