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Dr. Norman Ackerman served the University of Florida, College of Veterinary Medicine with distinction as Professor of Radiology from 1979 to 1994. A concerned teacher of veterinary students and residents of all disciplines, Dr. Ackerman also reached the veterinary scientific community through his writing. His numerous clinically pertinent publications are still today a vital part of the veterinary literature; therefore, it is appropriate this site perpetuates Dr. Ackerman's dedication to teaching. This site is presented in recognition of Dr. Norman Ackerman and his contributions to the field of veterinary diagnostic imaging.

Sponsorship of the display supports the Dr. Norman Ackerman Memorial Fund, dedicated to the teaching of diagnostic imaging residents at the University of Florida College of Veterinary Medicine.

- Ava
- 13 month old F German Shepherd Dog

Dr. Norman Ackerman Memorial Radiography Case Challenge

radiography case challenge

Dr. Norman Ackerman Memorial



History and case presentation

- Ava presents to your clinic with a 3 week history of intermittent lameness in her right thoracic limb. When she comes into your examination room she is non-weight bearing on her RF.
 - On physical examination, you detect pain in her right elbow.
 - You order elbow radiographs
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There is a heterogenous region of sclerosis within the medullary cavity of the proximal ulnar diaphysis. The cartilage and joint space are normal; there is no evidence of cartilaginous abnormalities or abnormalities in the subchondral bone. The joint is congruent.



Conclusion

You have found a heterogenous area of sclerosis in the medullary cavity of the proximal ulnar diaphysis, causing loss of visualization of the normal trabecular pattern of the medullary cavity.





Panosteitis

- This lesion is consistent with Panosteitis.
- Panosteitis causes bone marrow degeneration characterized by loss of the trabecular pattern in the medullary cavity and decreased contrast between the cortical bone and the medullary cavity. Panosteitis affects the diaphysis of long bones.
- Lesions may occur in one bone or in several, and may be solitary or multiple. Multiple lesions may coalesce.
- Lesions often originate around the nutrient foramen
- As the disease resolves, the bone eventually remodels and returns to normal, although there may be some persistent cortical thickening.



Case Follow up

- You advise the owners that Ava's prognosis is excellent as the lesions will self-resolve.
- You prescribe her a course of NSAIDs and rest and follow-up visits in 3-4 weeks.
- You are on the ball and remember to warn the owners that the lameness may recur, and Panosteitis may also develop in other limbs. Fortunately dogs usually will grow out of it once they reach around 18 months of age.



Panosteitis (Trostel et al.) *Canine Lameness caused by developmental orthopedic diseases: Panosteitis, Legg-Calve-Perthes disease and hypertrophic osteodytrophy. Compendium (2003); 25(4), 282-287* :

- Panosteitis is a common cause of intermittent lameness in young, growing dogs, usually 5-12 months of age. Shifting leg lameness is common as it can develop in several limbs.
- Panosteitis is most common in large and giant breed dogs, of which German Shepherd dogs are most frequently affected. It is more common in males than females.
- Clinical signs include acute shifting lameness with or without a history of trauma, lethargy, anorexia and fever.
- Upon clinical examination, the bones are painful when squeezed.
- The disease causes inflammation and remodeling of the medullary cavity of the diaphysis of long bones.
- The humerus, proximal ulna and femur are commonly affected.
- Radiographic signs often do not correlate well with clinical signs of lameness