What Is Your Diagnosis?

Figure 1—Mediolateral (left), flexed mediolateral (middle), and craniocaudal (right) radiographic views of the left elbow of a 13-month-old Rottweiler with a 7-month history of lameness.

History

A 13-month-old female Rottweiler was admitted for evaluation of a left forelimb lameness of 7 months' duration. Initially, the dog was allowed to run free, but was confined after the onset of lameness. The dog would bear weight on the limb, but decrease in range of flexion was observed in the metacarpophalangeal joint of the fifth digit. When the left elbow joint was extended, the dog appeared to be in moderate pain. Radiography of the left elbow area and left forefoot was done (Fig 1 and 2).

Make your diagnosis from Figures 1 and 2—then turn the page.

Figure 2—Dorsopalmar radiographic view of the left forefoot.
Diagnosis

Sclerosis of the radioulnar articulation in the region of the medial coronoid process and faint periarticular osteophytes on the anconeal process and the cranial portion of the radial head are visible. The humeroradial joint space is wider than normal. In addition, the seventh palmar sesamoid bone is fragmented.

Comments

The radiographic changes were consistent with a diagnosis of fragmented medial coronoid process. Because of overlying bony densities, a fragmented medial coronoid process is rarely visible radiographically. The fragmented medial coronoid process and fragmented sesamoid bone were excised, and there was substantial improvement in the degree of lameness after surgery.

Fragmented medial coronoid process is most common in Rottweilers, Labrador Retrievers, Golden Retrievers, and German Shepherd Dogs. In most cases, lameness develops at 4 to 7 months of age. Signs of mild pain usually are evident on flexion and extension of the elbow joint. The treatment of choice for this condition is arthrotomy and removal of the fragmented medial coronoid process, but approximately half of the dogs remain lame.

Rottweilers are also predisposed to fragmentation of palmar and plantar sesamoid bones. This condition usually is described as a fracture, however, the exact cause is not known. Fragmentation may actually be the result of traumatic fracture, stress fracture, osteochondrosis, or multiple ossification centers in the sesamoid bones. It is most commonly seen in dogs between 6 months and 2 years of age. The second and seventh sesamoids are the most commonly injured. Clinical signs include acute or chronic lameness, signs of pain on palpation of the suspected sesamoid bone with dorsiflexion of the digit, and signs of pain on flexion of the affected metacarpophalangeal joint. In chronic cases, surgical removal usually results in complete recovery.


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