

# Osteochondritis Dissecans of the Shoulder

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A 7-month-old, male Labrador retriever was presented with lameness of the right forelimb.

**History.** The lameness, which was most pronounced in the morning, was noticed by the owner 1 month before presentation. Lameness did not resolve with rest and carprofen.

**Examination.** Obvious weight-bearing lameness of the right forelimb was observed. Flexion of the right shoulder evoked a painful response. Mild atrophy of the shoulder muscles was seen. Physical examination was otherwise unremarkable.

**Laboratory Results.** PCV and total protein were within normal limits.

**Radiographs.** A subchondral defect on the caudal aspect of the humeral head was observed on radiographic examination of the right shoulder (**Figure 1**).

**Diagnosis.** Osteochondritis dissecans of the right shoulder.



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A subchondral defect (*arrow*) is seen at the caudal aspect of the right humeral head in this dog with osteochondritis dissecans (OCD).

### ASK YOURSELF ...

Which of the following is the optimal therapeutic plan?

- A. Exercise the dog heavily to attempt to dislodge the osteochondral flap.
- B. Recommend cage confinement and NSAID therapy for 8 weeks, followed by physical therapy for 8 weeks.
- C. Inject an intraarticular glycosaminoglycan (e.g., Adequan—Luitpold Pharmaceuticals, Shirley, NY)
- D. Inject an intraarticular glucocorticoid.
- E. Surgically explore the right shoulder, and remove the osteochondral flap.

continues

# INSIGHTS FROM CLINICAL CASES . DISCUSSION



**2** OCD commonly occurs bilaterally, but a normal left humeral head was found in this dog.

**Correct Answer: E**  
**Surgically explore the right shoulder, and remove the osteochondral flap.**

Osteochondritis dissecans is a common cause of forelimb lameness in large, rapidly growing breeds. It is an inherited disease that disrupts the normal ossification of cartilage in growing dogs. A small area of cartilage fails to mature into bone and becomes thickened and necrotic. The necrotic cartilage is biomechanically weak and often detaches from the subchondral bone, leading to pain and lameness. This condition is frequently bilateral. The left shoulder of this dog was radiographically evaluated and found to be normal (Figure 2).

Surgical removal of the osteochondral flap is recommended in dogs having clinical signs of lameness or pain on flexion of the shoulder (Figure 3). Early surgical intervention is recommended to remove the flap before it detaches completely from the underlying bone. Removal of a detached flap can be difficult because it may displace to a less accessible area of the cranial or medial aspect of the joint or down the

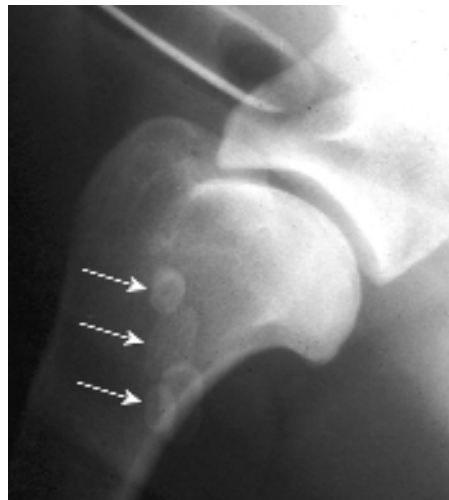


**3** Full flexion of the shoulder usually elicits a painful response in dogs with OCD of the humeral head.

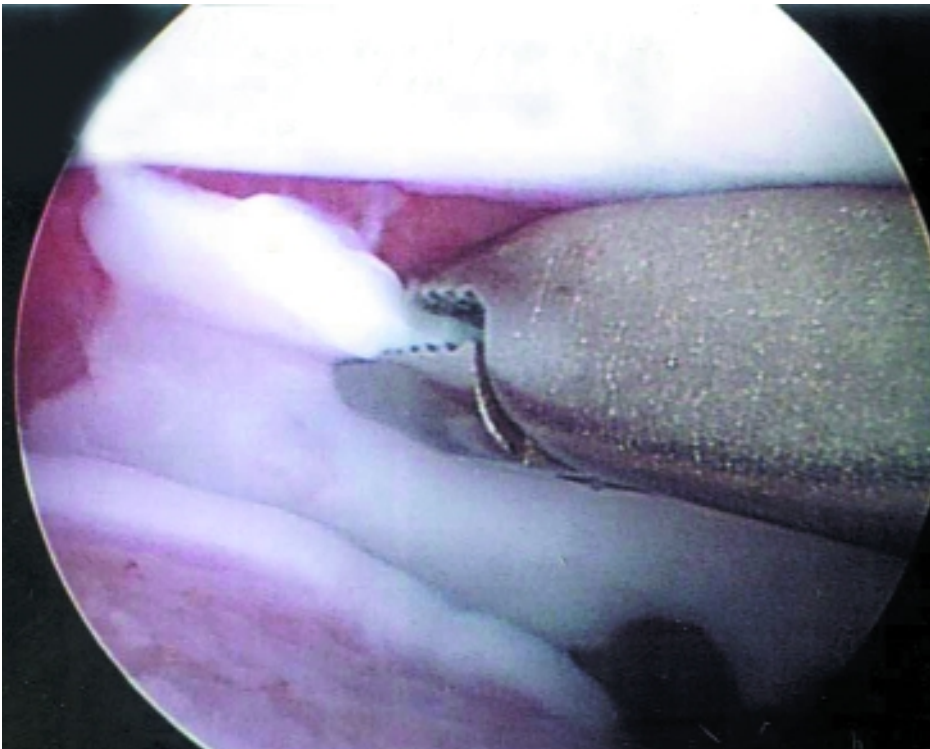
biceps tendon sheath (Figure 4). Dislodged flaps can also develop a synovial attachment and grow larger if left untreated. Flaps can be removed arthroscopically or through a standard caudolateral approach to the shoulder. The prognosis is excellent in most patients after complete removal of the flap.

This dog had arthroscopic removal of the osteochondral flap (Figure 5). Postoperative pain was managed with carprofen at 1 mg/lb PO Q 12 H for 7 days. Activity was restricted to leash walks for 2 weeks. The patient returned to normal function approximately 3 weeks following surgery. ■

See Aids & Resources, back page, for references, contacts, and appendices.



**4** Cartilage flaps that become dislodged can break apart, migrate, and grow. Multiple osteochondral fragments (arrows) are seen within the bicipital tendon sheath in this patient with OCD of the shoulder.



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Early surgical removal of the cartilage flap using a caudolateral approach to the shoulder or an arthroscopic technique is recommended. A large osteochondral flap was removed in this patient arthroscopically.

#### TAKE-HOME MESSAGE

Surgical removal of the cartilage flap is recommended in symptomatic dogs having OCD of the shoulder. Early treatment simplifies the procedure and reduces the chance for subsequent osteoarthritis or muscle atrophy. Most dogs return to normal function within a couple months after surgery.



#### ... at a glance

- Surgically remove the osteochondral flap early to avoid detachment and migration to a less accessible area.
- The flap can be removed with arthroscopy or a standard caudolateral approach to the shoulder.
- Administer an approved NSAID for 5 to 14 days postoperatively to treat pain due to generalized synovitis in the shoulder.