

## What Is Your Diagnosis?

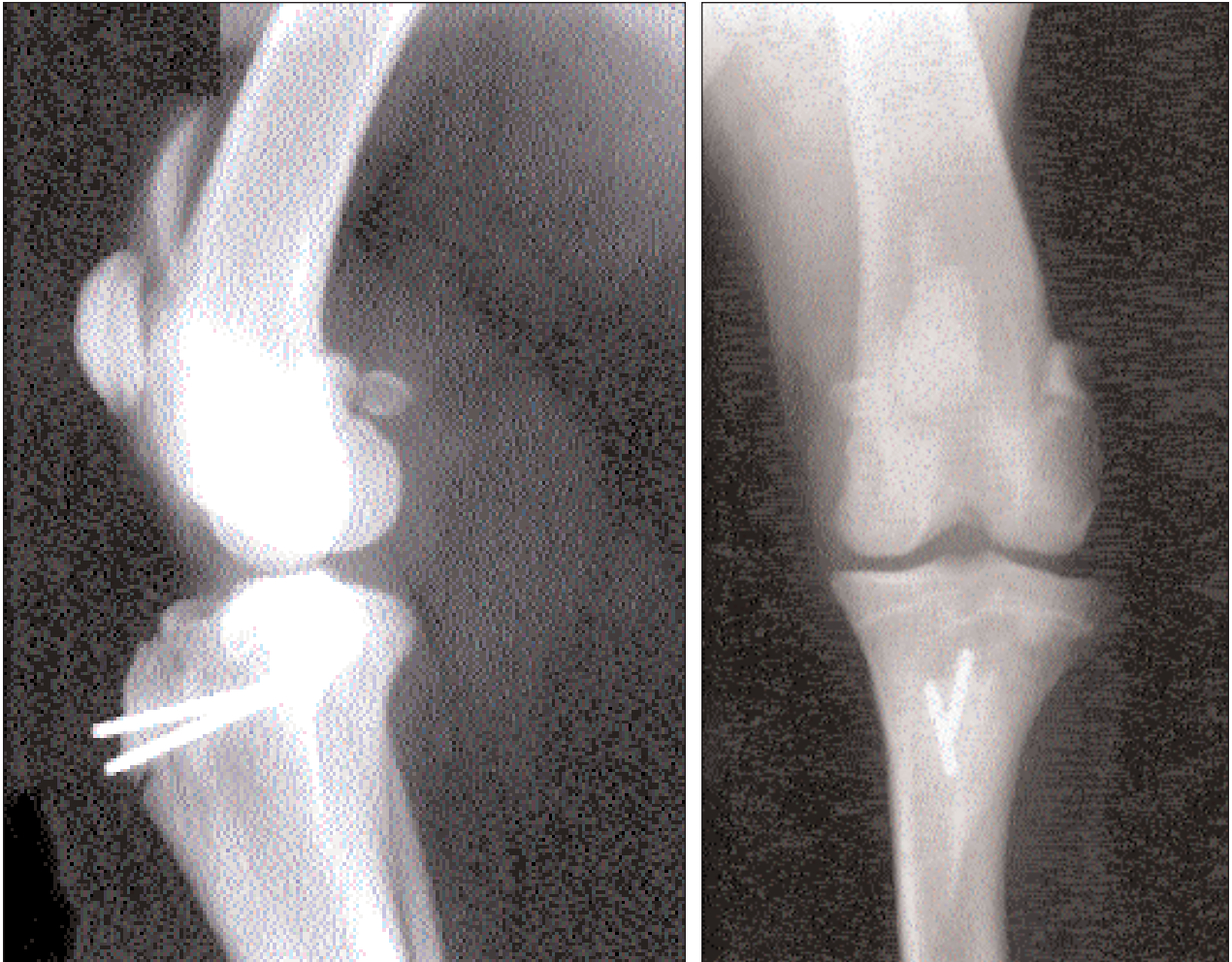


Figure 1—Lateral (left) and craniocaudal (right) radiographic views of the left stifle joint of a 15-month-old dog with an acute onset of left hind limb lameness 4 weeks after surgery to correct a medially luxated patella.

### History

A 15-month-old Labrador Retriever was evaluated because of a 1-week history of acute left hind limb lameness. Surgery, consisting of a trochlear wedge recession, tibial tuberosity transposition, medial desmotomy, and overlap of the lateral retinaculum,<sup>1</sup> had been performed 5 weeks prior to evaluation to correct a medially luxated patella. The dog recovered from surgery and became acutely lame 4 weeks later after colliding with a table.

Although the dog did have a left hind limb lameness, it did not resist manipulation of any joint in the affected limb. The stifle joint incision had healed, and crepitation or decreased range of motion was not detected in that joint. Radiographs of the left stifle joint were obtained (Fig 1).

Determine whether additional imaging studies are required, or make your diagnosis from Figure 1—then turn the page ▶

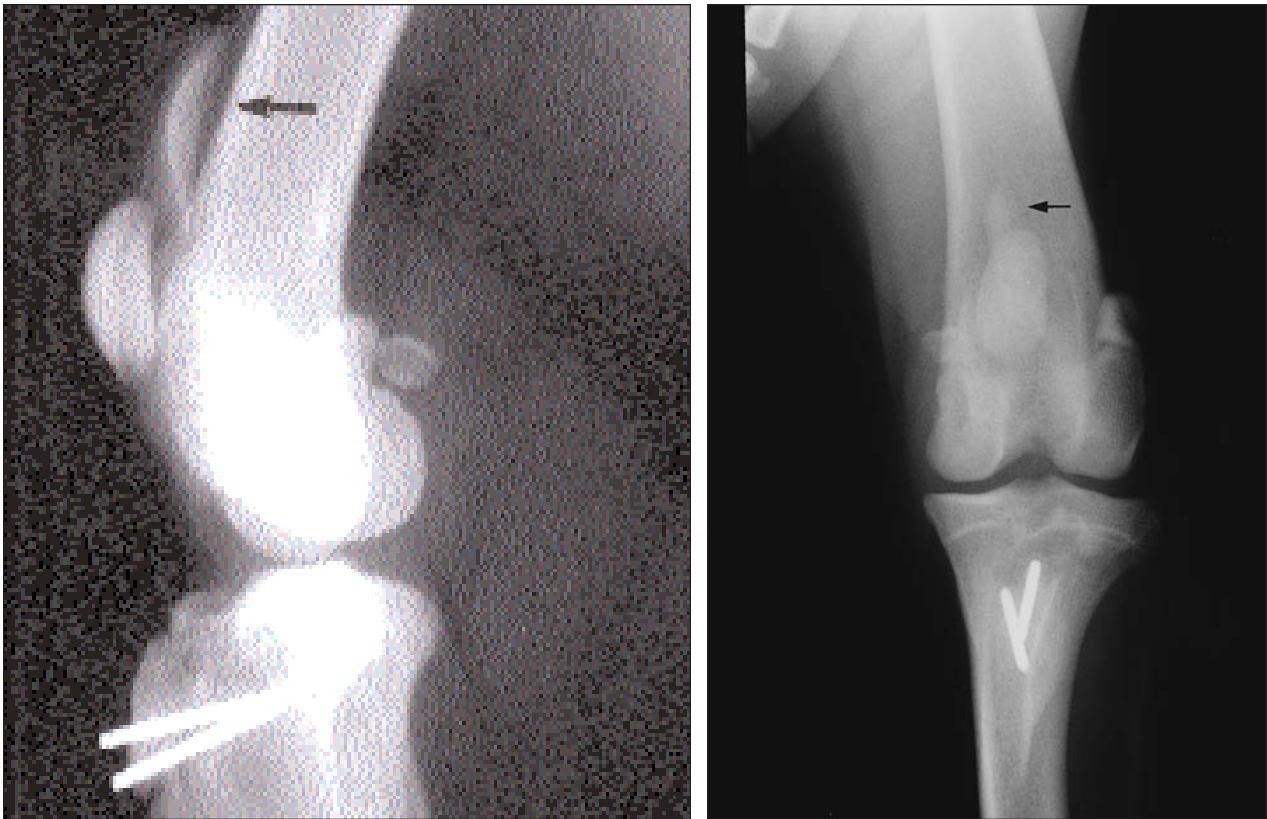


Figure 2—Same radiographic views as in Figure 1. Notice the displaced wedge-shaped bone fragment (arrows) proximal to the patella.

## Diagnosis

**Radiographic diagnosis**—Proximal displacement of the trochlear wedge and a laterally transposed tibial crest stabilized with 2 Kirschner wires (Fig 2).

## Comments

Radiography was useful for delineating the cause of lameness, because abnormalities were not detected during palpation of the stifle joint. A second arthroscopy was performed to repair the displaced trochlear wedge. However, the displaced wedge was discarded because it was discolored and friable and considered of questionable viability. Fibrocartilage was beginning to cover the exposed femoral groove, and the dog recovered well after the second surgery. The owner reported that the lameness resolved within 3 days of discharge from the hospital.

Trochlear wedge recession is a commonly performed procedure used to deepen the femoral groove and prevent medial or lateral luxation of the patella.<sup>1</sup> In this technique, a triangular wedge of articular cartilage and bone is removed and reseeded in a deepened groove to provide a natural hyaline cartilage bed for patellar motion. Displacement of the trochlear wedge is minimized because of the pressed fit of the

graft into a deepened groove, caudally directed patellar forces, and rapid osseous healing of vascularized cancellous bone.<sup>2,3</sup> Use of stabilizing implants for the trochlear wedge is not recommended nor, to our knowledge, has postoperative displacement been documented. A modification of the wedge recession technique has been described to minimize complications by creation of a rectangular versus triangular wedge and groove.<sup>4</sup>

1. Piermattei DL, Flo GL. The stifle joint. In: Piermattei DL, Flo GL, eds. *Handbook of small animal orthopaedics and fracture repair*. 3rd ed. Philadelphia: WB Saunders Co, 1997;516–534.
2. Boone EG, Hahn RB. Trochlear recession wedge technique for patellar luxation. *J Am Anim Hosp Assoc* 1983;19:735–742.
3. Slocum B, Devine T. Trochlear recession for correction of luxating patella in the dog. *J Am Vet Med Assoc* 1985;186:365–369.
4. Talcott KW, Goring RL. Rectangular recession trochleoplasty for treatment of patellar luxation in dogs and cats. *Vet Comp Orthop Traumatol* 2000;13:39–43.

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