Abstract Thoughts

Complications of Patellar Luxation Surgery in Dogs


**ABSTRACT:** In this retrospective report from a university clinic and a private practice referral center in England, the surgical techniques and postoperative complications of patellar luxation surgery in 109 dogs were reviewed. In these patients, 131 surgeries were performed. Half of the dogs had unilateral luxation, and half had bilateral luxation. The dogs’ mean age was 28 months and mean body weight was 39.6 lb (18 kg). The distribution of body weight was not significantly different for dogs with medial versus lateral patellar luxation. Medial patellar luxation was present in 88% of stifles and most common in Labrador retrievers.

The corrective techniques used were femoral groove sulcoplasty, tibial tuberosity transposition, retinaculum release and imbrication, and fabello-patellar or fabello-tibial sutures. Two or more techniques were used in all but two stifles. An overall complication rate of 18% (13% major, 5% minor) was recorded. Major complications included patellar reluxation and fractures or implant loosening associated with tuberosity transposition. Complications were more frequent in large (>44 lb [>20 kg]) dogs and dogs with higher grades of luxation. Tibial tuberosity transposition and sulcoplasty reduced the risk for postoperative complications.

The authors concluded that traditional corrective techniques, especially tuberosity transposition and sulcoplasty, are useful in treating most cases of patellar luxation.

**COMMENTARY:** Patellar luxation (medial or lateral, traumatic or congenital) in small, medium, and large dogs is frequently encountered in veterinary practice. In this review of cases from England, traditional methods of repair were analyzed to document the frequency and types of complications. The data presented provide useful prognostic information for clinicians and their clients. It appears intuitive that large dogs and dogs with more severe grades of luxation were more likely to develop complications, whereas age and luxation direction had no effect. It is worthwhile to note that sulcoplasty and tuberosity transposition reduced the incidence of complications and that patellar luxation was never corrected by any means in three stifles (2%).

ULTRASONOGRAPHIC EVALUATION OF THE EXTERNAL EAR CANAL AND TYMPANIC MEMBRANE IN DOGS


Ultrasonography was used to evaluate the external ear canal, tympanic membrane, and tympanic bulla before and after infusion of saline into the ear canals of five healthy beagles with intact or experimentally perforated tympanic membranes. No sedation or anesthesia was used for imaging with an ultrasound machine with an 11-MHz linear-array or 6.5-MHz curvilinear-array transducer.
The 11-MHz linear-array transducer was optimal for imaging these structures because they are superficial and because wide contact with skin allowed imaging of all structures in the same plane. Saline infusion produced an anechoic acoustic window and enhanced visualization: the entire external ear canal was visualized as an anechoic structure, and the tympanic membrane was easily identified as a hyperechoic line at the end of the canal. Saline, therefore, allowed imaging of both intact and perforated tympanic membranes (indirectly) as well as near and far walls of fluid-filled bullae. However, evaluation of membrane integrity was impossible with a fluid-filled tympanic bulla.

Key Finding:
• Ultrasonography with saline as an acoustic window seems to aid evaluation of the external ear canal, tympanic membrane, and tympanic bulla and may be a useful clinical tool for assessing ear canal status and otitis.