**Disk Fenestration: One or More?**

Fenestration of the affected disk space at the time of surgical decompression for thoracolumbar intervertebral disk herniation (IVDH) is recommended by some sources to prevent continued extrusion of degenerate disk material. However, whether to prophylactically perform fenestrations on unaffected disks is controversial. Recent reports of magnetic resonance imaging performed immediately and 6 weeks postoperatively in dogs that received decompressive surgery without undergoing fenestration showed that 6 of 10 patients had ongoing disk herniation at the site of surgery. Half of these dogs had clinical signs of pain, paresis, or both. Retrospective evaluations have also shown that recurrences of IVDH at previously unaffected disks occur in 88% to 100% of dogs, and more than 70% of these occur in areas that could easily have been fenestrated at the time of the initial surgery. This study investigated the effectiveness of fenestration at multiple disk spaces versus single-site fenestration. Ninety-five dogs in the single-site fenestration group and 94 in the multiple-disk fenestration group were available for long-term follow-up. Of these animals, 24 dogs developed 28 confirmed episodes of recurrent thoracolumbar IVDH. The overall rate for recurrence was 12.7%, with single-site fenestration producing a rate of 17.9% and multiple-site fenestration carrying a significantly lower rate of 7.5%. Disk mineralization at the time of the first surgery was associated with recurrence. Of the 24 dogs with recurrent IVDH, 21 (87.5%) developed herniation at the disk space adjacent to or one disk space away from the initial surgery. Regardless of group, 91.7% of recurrences occurred at a nonfenestrated disk space.

**Commentary:** Recurrence of disk herniation in a dog that has already had surgery for a disk is painful to the dog, the owner, and the surgeon. This prospective study from the Ontario Veterinary College compared the recurrence rates with fenestration of the affected site only versus fenestration of all disks from T11 to L4 with nearly 100 dogs in each category. While presence of mineralized disks and lower age correlated with a higher likelihood of recurrence, the dachshund breed did not have a higher rate than others. Dr. Brisson’s group has provided even more evidence in support of fenestration, which has continued to be a controversial topic in veterinary surgery for decades. The large number of dogs and nearly 4-year follow-up allow compelling statistical results. It is disappointing that the difference in operative times was not reported, but the multiple-site group did have more complications. The last large study on unfenestrated IVDH reported a 19.2% recurrence rate, similar to that of the single-site group here. The appearance of disk herniation at adjacent disks supports the domino theory of disk disease, in which increased forces act on the adjacent disk following surgery.—Jonathan Miller, DVM, Diplomate ACVS


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**Teeth & Gums: Oral Disease in Ferrets**

Although ferrets are common pets, information regarding their oral diseases is lacking. Investigators examined 63 ferrets from a rescue organization for oral, gingival, and dental disease and dental abnormalities. Forty-nine ferrets were deemed healthy enough to undergo general anesthesia for a detailed oral examination, oral radiography, and appropriate treatment. Their mean age was 4 years (range, 1–6 years). Skeletal malocclusion or supernumerary teeth were not present in any. The most common clinical finding was malocclusion of mandibular second incisor teeth (95.2%). One or more extruded canine teeth were found in 59 of 63 (93.7%) ferrets. Tooth wear due to abrasion or attrition was found in 48 of 63 (76.2%), and fractures, which involved only canine teeth, were found in 20 of 63 (31.7%). Missing teeth were rare. There was no evidence of tooth resorption, dental caries, stomatitis, or oral tumors. Some clinical evidence of periodontal disease was evident (gingivitis or probing depths > 0.5 mm), but advanced disease was not observed.

**Commentary:** It should be no surprise that perio -odontal disease affects more than just dogs, cats, and humans. This study confirms the presence of various forms of dental-related disease in ferrets within this rescue population. These animals were found to demonstrate periodontal disease and tooth fracture similar to what is seen in canine and feline patients. While treatment recommendations remain the same, the high prevalence for maxillary canine tooth fracture and subsequent lip trauma from remaining mandibular canine teeth after extraction strongly warrant consideration of endodontic treatment.—Christopher Snyder, DVM, Diplomate AVDC