Meniscal Clicks & Tears

Cranial cruciate ligament (CCL) disease is a leading cause of pelvic limb lameness in dogs. Concurrent damage to the medial meniscus can be a significant source of lameness. Meniscal tears can be diagnosed via MRI, but this is costly and not always available. This study's purpose was to prospectively evaluate the reliability of identifying meniscal tears by detecting a palpable meniscal click at orthopedic examination before and during anesthesia. Findings were confirmed on intra-operative examination by either arthroscopy or arthrotomy of the stifle joint. An overall meniscal tear rate of 40% was identified in the 60 stifles examined. Higher sensitivity was achieved under anesthesia compared with before anesthesia (58.3% vs 45.8%, respectively). Both evaluations yielded a specificity of 94.4%. The accuracy (true positive stifles plus true negative stifles divided by the total number of stifles) was 75% and 80% before and during anesthesia, respectively. Meniscal tears were more prevalent in dogs with complete CCL tears than in dogs with partial tears at a ratio of 11:1. A palpable meniscal click was identified in 3 animals with no meniscal pathology (false positive) and considered the result of CCL remnants acting as a mechanical block. Palpation of a meniscal click at any time preoperatively strongly correlates with a true meniscal tear, but lack of a palpable click is not a strong indicator of a normal meniscus.

Commentary

Meniscal damage is a common comorbidity associated with unstable stifles from CCL rupture in dogs. Palpation of a meniscal click strongly correlates with the presence of a meniscal tear, but the absence of a click does not reliably rule out meniscal pathology. Thorough examination of the meniscus can be challenging; however, with appropriate training and arthroscopy, this can be accomplished. Visual inspection and probing of the meniscus is a key component of surgery for dogs with CCL rupture and should be performed in all dogs undergoing operative treatment, regardless of whether there was a palpable click preoperatively.—*Kevin Kroner, DVM, Resident in Small Animal Surgery (University of Wisconsin); Jason Bleedorn, DVM, DACVS*

Source

Neal BA, Ting D, Bonczynski JJ, Yasuda K. Evaluation of meniscal click for detecting meniscal tears in stifles with cranial cruciate ligament disease. *Vet Surg*. 2015;44(2):191-194.

onehealthinitiative.com

Treating Diabetic Cats

Glucagon-like peptide 1 (GLP-1)—an incretin or gastrointestinal hormone released during food intake—increases insulin secretion from β-cells in the pancreas. This incretin is rapidly degraded by the enzyme dipeptidyl-peptidase-4 (DPP-4). Novel classes of antidiabetic drugs that take advantage of incretin's glucoregulatory actions have been developed and used successfully in the treatment of human type 2 diabetes. Because feline diabetes most closely mimics human type 2 diabetes, investigation of incretins' role in cats is warranted.

This study investigated the safety and efficacy of 2 subcutaneous GLP-1 analogues (exenatide and exenatide extended-release) and 1 oral DPP-4 inhibitor (sitagliptin). All enhanced healthy cats' insulin secretion. The GLP-1 agonists were capable of more pronounced effects than the DPP-4 inhibitor, which is similar to results seen in humans. Dose escalations showed a proportional insulin secretion increase, and all drugs were associated with mild gastrointestinal side effects that did not appear dose-dependent. Injection site reactions, cystitis, or respiratory signs—potential side effects in humans—were not seen. It is possible these drugs present safe, effective treatment options for diabetic cats.

Commentary

This study presents potential novel treatment options for cats with diabetes. Potential benefits would be decreased dosing frequency compared to the common twice-daily insulin regimen. It is unclear how these drugs would compare to insulin therapy in terms of cost and availability and whether they would result in a higher rate of remission when used with certain prescription diabetes-management diets. Long-term data are necessary to further elucidate the benefits.—*Heather Troyer, DVM, DABVP, CVA*

Source

Padrutt I, Lutz TA, Reusch CE, Zini E. Effects of the glucagon-like peptide-1 (GLP-1) analogues exenatide, exenatide extended-release, and of the dipeptidyl-peptidase-4 (DPP-4) inhibitor sitagliptin on glucose metabolism in healthy cats. *Res Vet Sci*. 2015;99:23-29. http://www.sciencedirect.com/science/article/pii/S0034528814003427. Published April 2015. Accessed May 20, 2015.

continues