

The Problem with the Pancreas

Investigation of pancreatic diseases is problematic, as biochemical testing is nonspecific and insensitive, and current imaging cannot distinguish benign from malignant processes. Cytologic assessment of fine-needle aspirates can also lack reliability; therefore, histopathologic evaluation of biopsy specimens remains the gold standard for pancreatic disease diagnosis.

Surgical manipulation of the pancreas, including biopsy, may result in deleterious complications, most notably pancreatitis. This has been examined in limited experimental animal studies, but not in clinical patients.

This retrospective case series investigated postoperative clinical findings in relation to histopathologic findings in 24 dogs and 19 cats that had open surgical pancreatic biopsy performed over a 13-year period at 2 referral centers. All but 1 case had some

other concurrent procedure performed, most commonly liver, GI, or lymph node biopsy. Complications were noted in 10 cases, 5 of which were suggestive of postoperative pancreatitis. Pancreatic pathology was noted in 19 cases; an additional 7 cases were shown to have benign nodular hyperplasia, and the remaining 17 had no abnormalities.

■ Commentary

The pancreas is an organ feared by many surgeons, as historical information suggests manipulation may result in complications. Despite this concern, histopathologic evidence is often needed to substantiate clinical diagnosis. This study reports that, although the risk of postoperative complications is high (23%), few of these can be directly related to pancreatic biopsy, as nearly all cases have concomitant disease processes or surgical

procedures performed. There were no correlations drawn between specific patient risk factors or histopathologic findings to inform future diagnostic pearls. In cats, where pancreatitis was commonly found on histopathology, only 1 case developed clinical detectable signs consistent with postoperative pancreatitis. The risk of postoperative complications, even in higher risk groups, may be less than historical dogma would suggest.—*Jason Bleedorn, DVM, DACVS*

■ ■ Source

Pancreatic surgical biopsy in 24 dogs and 19 cats: Postoperative complications and surgical relevance of histological findings. Pratschke KM, Ryan J, McAlinden A, McLaughlan G. *J SMALL ANIM PRACT* doi: 10.1111/jsap.12262

Degenerative Left Shift Outcomes in Cats

A degenerative left shift (DLS) describes a neutrophil pattern in which there are a larger number of immature granulocytic precursors as compared to mature neutrophils. In cats, bone marrow has a large storage reserve of neutrophils. When the demand for neutrophils exceeds this reserve, the bone marrow releases granulocytic precursors into the blood circulation, resulting in DLS.

This retrospective case-control study of 108 cats with DLS and 322 control cats presenting to a veterinary hospital sought to determine if cats presenting with DLS had an increased risk of euthanasia or death. Disease categories included septic peritonitis, pyothorax, FeLV, wounds, and other. The authors found that cats diagnosed with DLS were 1.57 times more likely to die or be euthanized in hospital when compared to control cats with the

same disease. In addition, cats with increased DLS severity were at increased risk for death or euthanasia.

■ Commentary

The main conclusion of this retrospective study was that cats presenting to a veterinary medical teaching hospital with a DLS were 1.57 times more likely to die (or be euthanized) in hospital than cats with the same diseases without a DLS. This conclusion should not be over-interpreted, however, because cases were analyzed from medical records created over 15 years. Problems that could arise from such an analysis are variations in technician and pathologist interpretation of cell morphology, possibly incurring misclassification of cells. In addition, the study parameters did not include CBC findings that were collected at any time other than within 24 hours of admission. It is, therefore, a

snapshot-in-time that might overlook improvement in the left shift that occurred subsequently, possibly even resolving. Although nice to have for prognostication, because each patient can respond differently, hazard ratios should not be oversold to clients, as doing so can result in earlier death.—*Margie Scherk, DVM, DABVP (Feline)*

■ ■ Source

Degenerative left shift as a prognostic tool in cats. Burton AG, Harris LA, Owens SD, Jandrey KE. *J VET INTERN MED* 28:912-917, 2014.