

FOCUS Locating Disk Herniation

Although advanced imaging (eg, myelography, CT, MRI) is commonly used for localization of disk herniation and is the current standard of care, there are instances when neurologic examination and survey radiography may be helpful in the initial triage of patients. In this retrospective study, the records of dogs ($n = 338$) with surgically confirmed intervertebral disk herniation between T10-L1 and L6-7 were reviewed to determine the best predictor of localization (ie, neurologic examination, survey radiography, or both) using multivariable logistic regression models. The models using survey radiographic data and radiographic data combined with neurologic data had similar predictive values; both were better than models based only on neurologic data. However, all models resulted in substantial errors in prediction. Neurologic and

radiographic findings should not exclude the use of advanced imaging in abnormal areas of the spinal cord.

■ Commentary

Clinical neuroanatomic localization of spinal cord disease is essential to refine the potential diagnostic differentials and imaging plan. Spinal radiography is often bypassed in favor of advanced cross-sectional imaging that allows more definitive diagnosis and surgical planning. However, cross-sectional imaging relies on accurate clinical localization to target the appropriate area of study. This is important for efficient and safe imaging studies, as imaging multiple sites (eg, T3-L3, L4-S2) in larger dogs via MRI may require moving the patient and performing 2 completely separate studies.

Interestingly, this study suggested that radiographic data may have value in improving the accuracy of localization. However, the predictive value with radiography and neurologic examination is still poor in regard to a specific site. Unfortunately, substantial recorded data for the neurologic examination were missing (>50% in most categories), which limits the usefulness of this portion of the analysis.—*Jason Bleedorn, DVM, DACVS*

■ ■ Source

Evaluation of neurologic data, survey radiographic results, or both for localization of the site of thoracolumbar intervertebral disk herniation in dogs. Murakami T, Feeney DA, Wiley JL, Carlin BP. *AM J VET RES* 75:251-259, 2014.

The Nose Has It: Examining Nasal Discharge

A common clinical sign of nasal disease is nasal discharge. With the exception of unilateral hemorrhagic discharge commonly associated with intranasal neoplasia, little data compare the discharge characteristics of different underlying intranasal diseases. In this retrospective study, the medical records of 105 dogs with discharge caused by nasal disease (ie, nonspecific rhinitis [$n = 41$], nasal neoplasia [$n = 23$], foreign body [$n = 21$], nasal mycosis [$n = 7$], miscellaneous causes [$n = 13$]) were reviewed. Dogs with foreign bodies or nasal mycosis were significantly younger than dogs with other diseases. Dogs with nasal foreign bodies and nasal neoplasia mainly showed unilateral nasal discharge. Sneezing was common in dogs with foreign bodies. Nasal stridor was significantly more common in dogs with nasal neoplasia as compared with other dogs. Mucoïd discharge was significantly more common in dogs with nonspecific

rhinitis and nasal neoplasia as compared with other groups, while pure or mixed hemorrhagic discharge was significantly less common in the nonspecific rhinitis group as compared with dogs with foreign bodies, nasal neoplasia, or nasal mycosis. Purulent discharge was most often associated with nonspecific rhinitis and foreign bodies.

■ Commentary

The standard diagnostic approach to nasal discharge in dogs is a CT scan followed by rhinoscopy and nasal biopsy. While this approach is diagnostic in most cases, the cost associated with these procedures is not feasible for some owners and not all veterinarians have access to CT and rhinoscopy. This study evaluated clinical signs and diagnostic test results in an effort to correlate these findings with specific nasal diseases. The study results concluded that consideration of the age and

history of the patient and findings on thorough physical examination may aid in prioritizing the differential diagnosis and subsequent decisions regarding diagnostics. Unfortunately, radiographic features often were not helpful in differentiation, although some aspects of nasal CT were significantly associated with specific diseases (rhinitis, nasal neoplasia). Based on my clinical experience, many of the clinical aspects of nasal disease that help prioritize my differentials were confirmed by the findings of this study.—*Laura Nafe, DVM, DACVIM*

■ ■ Source

Characteristics of canine nasal discharge related to intranasal diseases: A retrospective study of 105 cases. Plickert HD, Tichy A, Hirt RA. *J SMALL ANIM PRACT* 55:145-152, 2014.

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