Potential Complications of Nasogastric Tube Placement

Nasogastric tube (NGT) placement is generally considered technically straightforward, although complications are possible. This study reported 2 canine cases in which NGTs were inadvertently advanced into the lung, resulting in iatrogenic pneumothorax. In both patients, an NGT was introduced through the nostril and advanced into the lung, resulting in iatrogenic pneumothorax. In case 1, the NGT was initially advanced to the level of the gastric lumen using standard anatomic landmarks. Right lateral chest radiographs confirmed proper placement before the tube was advanced further. In both cases, the NGT was assumed to be correctly positioned in the distal esophagus. Negative pressure was obtained on NGT aspiration. Coughing was not noted; however, further attempts to advance the tube were met with resistance. The NGT in case 1 was immediately withdrawn, but after subsequent attempt at placement, a right lateral thoracic radiograph revealed intrapleural NGT positioning with pneumothorax. The patient went into cardiorespiratory arrest but was successfully resuscitated and treated for pneumothorax. Case 2 exhibited a cough reflex. Obtaining negative pressure on NGT aspiration may not rule out tracheopulmonary placement, and routine radiography may not identify a problem. The authors proposed a modified Roubenoff and Ravich 2-step protocol in which the NGT is initially advanced only to the level of the fourth or fifth intercostal space, followed by cervical thoracic or lateral oropharyngeal radiography to confirm proper intraesophageal placement before final positioning. This would decrease the likelihood of advancing a misdirected tube deep enough to cause lung injury.

Commentary
This case series described a potential complication that was associated with NGT placement in 2 dogs that had not previously been reported. The article reviewed more common complications associated with NGT, including oropharyngeal trauma, epistaxis, and inadvertent tracheal intubation. The article also emphasized the use of thoracic radiography, including imaging of the cervical region, to correctly identify tube placement.—Lisa L. Powell, DVM, DACVECC

Source

Think Outside the Box to Prevent Going Outside the Box

Inappropriate elimination is a common behavior challenge in cats and a frequent reason for relinquishment or euthanasia. Common control recommendations include increasing the cleanliness and number of litter boxes, removing covers, and changing litter substrates. Antianxiety medications are sometimes prescribed. Despite these interventions, many cats still urinate and defecate outside the litter box.

This study evaluated the response of healthy indoor-only domestic cats to the simultaneous provision of 2 different-sized plastic litter boxes: one 56 × 38 × 14 cm (regular size), the other 86 × 39 × 14 cm. Clumping litter was used as the substrate. Cats (n = 74) from 43 households were included. Owners recorded the daily number of urine and fecal deposits in each box for 1 month. After 2 weeks, box locations were reversed to detect and eliminate location preferences.

In total, 5,031 deposits were noted in the larger boxes and 3,239 in the smaller boxes. Defecation in the smaller boxes was the least frequent event; urination in larger boxes was the most frequent. While individual feline preferences in multicat households were not recorded for practical reasons, no significant association was detected between number of cats in the home and box size preference. Overall, results indicated most cats showed a definite preference for a larger litter box. Practitioners should consider adding this recommendation to those previously listed.

Commentary
Cats have a desert ancestry where the entire desert was their litter box, so it is not surprising that they prefer large litter boxes. When shopping for litter boxes, even jumbo boxes are only 22–23 inches long—the approximate size of the regular box used in this study. It is important to give owners suggested dimensions rather than asking them to depend on the box manufacturer’s choice of adjective. Owners need to think outside the box when hunting for an appropriate litter-holding container. Under-the-bed storage bins (34 × 16 inches) and cement mixing trays (36 × 24 inches) are 2 items I recommend. If a household cannot accommodate the suggested litter box size, I recommend that owners obtain a box that is at least 1.5–2 times the cat’s length from nose to rump.—Sandra Sawchuk, DVM, MS

Source