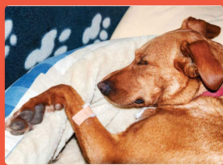


Pain management in the emergency or critical care setting¹

VPN, September 23rd 2021



Pain has become known as the fifth vital sign and is now assessed in addition to temperature, pulse, respiratory rate, and blood pressure. One study showed 56 percent of dogs and 54 percent of cats were painful when they presented to the emergency service. Pain assessment is beyond the scope of an article but there are a wide variety of pain assessment protocols available to assist with assessment and response to pain management.

Analgesic needs - One study showed that, while most owners understand a surgical procedure requires analgesia, they do not all believe an ear infection is painful or lameness indicates pain. Many owners do not understand what pain looks like in their pets and do not believe their pets are painful unless they can see the injury. Emphasizing pain management when the patient is initially assessed will keep the door open to continue the conversation when the patient is hospitalized and/or discharged. Several analgesic options are available to be used on initial evaluation.

Hospitalization - Multi-modal pain management is advantageous as it decreases the amount of any one drug required. If the patient can tolerate (and adequately absorb) oral medications, gabapentin, tramadol, or an NSAID can be started before the patient is off intravenous medications, providing a smooth transition from intravenous to oral pain management.

Nursing care - Nursing care is vitally important. Performing PROM and massage will contribute to patient comfort as will ensuring the animal has a comfortable bed, is being rotated (if recumbent), and is in a comfortable position.

Nursing considerations for neonate and pediatric patients²

VPN, September 23rd 2021



Neonates and pediatric patients can be challenging when it comes to nursing care. Their size, immune system, and fragility make it difficult to treat ailments. Factors to consider include:

Temperatures and body functions

Internal organ issues - Neonates also have an immature liver at birth. This leads to a higher incidence of hypoglycemia. Vomiting, hypothermia, diarrhea, and infection all quickly contribute to hypoglycemia. Once a neonate is hypoglycemic, it is lethargic, ataxic, has

decreased suckle reflex, and becomes hypothermic. Hypoglycemia must not be prolonged due to possible brain injury and death.

Parasites - Parasitism is very common in neonates and pediatrics. They can be acquired by fecal/oral transmission or transplacental. Parasitism can be fatal if left untreated. It can cause dehydration, anemia, diarrhea, impaction, or neurologic disease. Fading puppy/kitten syndrome is a condition where the clinical signs are very unclear. Neonatal isoerythrolysis occurs when a female cat with type B blood breeds with a type A tomcat. When blood type A or AB kittens are produced, they are at risk of hemolysis from the mom's antibodies in the colostrum.

Septicemia - Septicemia can occur in neonates. This can be caused by bacteria entering the blood stream in some way. This can be via the GI tract, respiratory tract, urinary tract, skin, umbilical cord, or when a puppy's tail is docked.

Even with healthy puppies and kittens, client education is important in ensuring a healthy first year and a strong immune system.

Canine and feline pyothorax³

Vet Times, September 23rd 2021



Pyothorax - or empyema as it is sometimes known - is a pleural space disease affecting both cats and dogs.

Underlying causes - such as migrating foreign bodies, penetrating thoracic trauma, pneumonia and haematogenous spread - can lead to the buildup of purulent material within the thoracic cavity.

Common presenting signs for cats and dogs with pyothorax include dyspnoea and tachypnoea, pyrexia, lethargy, hyporexia/anorexia and weight loss.

On clinical exam, dyspnoea with muffled heart and respiratory sounds should prompt clinicians to perform thoracic imaging.

Diagnosis - Thoracic point-of-care ultrasound can be used to rapidly identify pleural effusion in cats and dogs. Purulent fluid can often be very echogenic on ultrasound and may, in some cases, be confused with a diseased lung. Thoracocentesis is the next step to both diagnose and stabilise the patient. Initial cytology of the fluid can be performed in-house and is typically consistent with a septic inflammatory exudate. In some patients, especially those that are currently being treated with antibiotics, cytology may show a heavily inflammatory exudate without the presence of intracellular bacteria. This should still be considered as highly suspicious of pyothorax. While both radiographs and ultrasound are effective at identifying pleural effusion, lesions such as abscesses can be missed. Research has suggested a good agreement between CT and surgical findings in dogs. This has not been fully investigated in cats, so the utility of CT in feline pyothorax is unknown. Detailed medical management can be read on Vet Times, Volume 51, Issue 36



STUDY

Intake of snacks containing curcumin stimulates erythropoiesis and antioxidant response in dogs

Comparative Clinical Pathology, June 2020

The objective of this study was to determine whether snacks containing curcumin have beneficial effects on dog health. The snacks were produced from commercial canned meat for dogs, and curcumin was added and homogenized. Snacks containing 15 mg of curcumin were produced, frozen, and offered to dogs twice a day. Ten beagles (6 months of age) were used. The animals were placed in an experimental kennel and allocated randomly to 1 of 2 treatments (5 dogs/treatment): snacks containing curcumin (curcumin; 30 mg of curcumin/animal/day) or not (control). On day 15, numbers of erythrocytes and hematocrit were greater in dogs fed with curcumin than in control dogs.

Dogs fed with curcumin had lower numbers of leukocytes (day 30), neutrophils (day 15), and lymphocytes (day 30) than did control dogs. Dogs fed with curcumin had lower plasma levels of nitric oxide, reactive oxygen species, lipoperoxidation, and protein carbonylation on day 30 than did control dogs. Finally, dogs fed with curcumin had greater plasma total antioxidant capacity and concentrations of protein thiol, non-protein thiol, glutathione peroxidase, and superoxide dismutase on day 30 compared with control dogs.

We conclude that curcumin in dog snacks stimulated the antioxidant system and consequently reduced oxidative reactions, which is beneficial to animal health. Furthermore, 30 mg of curcumin/dog/day reduced leukocyte counts, which suggests mild anti-inflammatory effects.

Curcupet



Dosage:

1 tablet per 10 kg body weight, in 2 divided doses

Presentation:

A bottle containing 30 tablets

CARTail



Dosage:

4.4mg/kg OD,
1 tab of 50mg for 12 Kg OD,
1 tab of 100 mg for 23 Kg OD

Presentation: 1x6 tablets

FIROtail



Dosage:

5mg/kg BW once a day

Presentation: 10x1X6 Tablets

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