VetLIT.org

July 2024

Hi All,

Please see below for a selection of useful and important articles.

As always, hope you find these articles interesting and remember the site itself is always updating with other articles you might enjoy. The literature by condition areas are always growing too: BOAS, urethral obstructions, cardiac surgery, IMHA, POCUS...

Simon (simon@vetlit.org)

Recovery of ambulation in small, nonbrachycephalic dogs after conservative management of acute thoracolumbar disk extrusion.
JVIM. Open access
https://onlinelibrary.wiley.com/doi/10.1111/jvim.17149

This study included dogs that were non-ambulatory due to suspected or confirmed thoracolumbar disc extrusion, which were unable to pursue surgical management as would usually be recommended, and committed them to conservative management.

49/51 deep pain perception positive animals recovered ambulation. Of 21 deep pain perception negative dogs, 5 were euthanised prior to initial investigations, leaving 16 undergoing conservative management. Of these, 10 regained ambulation after a median of 25 days, 4 remained deep pain perception negative and 2 developed progressive myelomalacia. All deep pain perception

negative dogs that recovered ambulation were urinary continent and without ongoing pain.
Take home - even if you are presented with a deep pain perception negative dachshund with minimal finances, if nursing at home is an option and owners are recognising that myelomalacia could still develop, then ongoing conservative management should absolutely be discussed. (It remains to be seen if there is an even stronger case to pursue conservative management…)

Linear and discrete foreign body small intestinal obstruction outcomes, complication risk factors, and single incision red rubber catheter technique success in cats.
Vet Surgery
https://onlinelibrary.wiley.com/doi/10.1111/vsu.14125

This study identified 169 cats that had had surgical management of small intestinal foreign bodies. Those with linear foreign bodies were significantly younger than those with discrete foreign bodies (median 2 vs 4 years). A red rubber catheter technique was often used to retrieve linear foreign bodies. 164 cats survived to discharge and dehiscence rates were very low, which seems to be the case in previous literature on cats with GI foreign bodies too. In dogs you will readily find surgical site dehiscence rates of >10%.

High-flow nasal cannula oxygen therapy in seven cats with respiratory failure
JFMS. Open access
https://journals.sagepub.com/doi/10.1177/1098612X241249837

This is the largest description of HFNOT in cats to date. A range of diseases were represented (CHF, pneumonia, ARDS…) but the interfaces were well tolerated; where sedation was used, it was predominantly butorphanol. HFNOT was initiated with median flow rates of 1.5 l/kg/min (range 1.5–2.3) and a median FiO_2 of 0.95 (range 0.4–1.0). Photos are included of both Vapotherm and Airvo 2 system interfaces.

Ultrasound is an accurate imaging modality for diagnosing hip luxation in dogs presenting with hind limb lameness
JAVMA. Open access
https://avmajournals.avma.org/view/journals/javma/aop/javma.24.05.0321/javma.24.05.0321.xml

The techniques and skillsets documented in this study are great to read about. I am not proposing that radiographs shouldn't be the default, but increasing availability of ultrasound means that musculoskeletal ultrasound is getting more exposure, and some of you may be keen to upskill in it.

Evaluation of fluid responsiveness using liver compression in dogs with experimentally induced hypovolemia.
AJVR. Open access
https://avmajournals.avma.org/view/journals/ajvr/aop/ajvr.24.03.0083/ajvr.24.03.0083.xml

This experimental study explores the concept that external liver compression might augment preload, and enable assessment of fluid responsiveness to that effect. In a state of marked hypovolaemia, stroke volume and mean arterial blood pressure were significantly improved with this intervention. Pressure was applied for 1 minute with a pressure of 12 to 13 N per 42 cm2, which is the same as a pressure of 22 mmHg.

Open-chest cardiopulmonary resuscitation through a transdiaphragmatic approach in dogs: a cadaveric study to describe the surgical approach and manipulations
AJVR. Open access.
https://avmajournals.avma.org/view/journals/ajvr/aop/ajvr.24.04.0109/ajvr.24.04.0109.xml

This is exactly as it sounds, complete with photos. I think it's important to think about this, with specific scenarios in mind (eg. being in theatre with an animal already, or if an animal crashes with a diaphragmatic rupture…) I include here also an excerpt from the advanced life support article from the recent RECOVER guidelines (https://onlinelibrary.wiley.com/doi/10.1111/vec.13389)

"We recommend OCCPR in dogs and cats with abdominal organs or substantial accumulations of fluid or air in the pleural or pericardial spaces (strong recommendation, expert opinion).

We recommend direct cardiac massage in dogs and cats undergoing abdominal or thoracic surgery (strong recommendation, low quality of evidence).

We suggest OCCPR in dogs and cats with penetrating thoracic trauma or rib fractures at or near the chest compression point (weak recommendation, very low quality of evidence).

In medium- and large-breed round-chested and wide-chested dogs in which OCCPR is feasible and clients are amenable to the procedure, we recommend that CCCPR be started immediately and OCCPR be started as soon as possible (strong recommendation, low quality of evidence).

We suggest attempting OCCPR in cats and small dogs (<15 kg) only if they have pleural or pericardial disease, if they have

penetrating thoracic trauma, if they are undergoing abdominal or thoracic surgery, or if CCCPR appears to be inadequate (weak recommendation, expert opinion).

We recommend discussing the pros and cons of OCCPR in any dog at risk of CPA when obtaining a “CPR code” at the time of hospitalization if OCCPR is offered by the practice and is indicated (strong recommendation, expert opinion).”

Intravenous fluid therapy compared to no treatment following blood donation in cats: a randomised controlled trial
JSAP. Open access.
https://onlinelibrary.wiley.com/doi/10.1111/jsap.13760

Just as is practiced in people and dogs – it seems that we probably don’t need to be providing fluids post blood donation to our cats (consciously donating medians of 9.7-9.9ml/kg in this study). Glad we are learning more about the donors and the donation process.

A review of renal tubular acidosis
JVECC
https://onlinelibrary.wiley.com/doi/10.1111/vec.13407

When one of your previous renal lecturers tells you “I don’t even *really* understand RTA” it gives you (gave me) an enormous sense of relief…This article is very helpful to “un-muddy” the waters though, if you enjoy blood gases and renal physiology and want to commit some time to indulge.

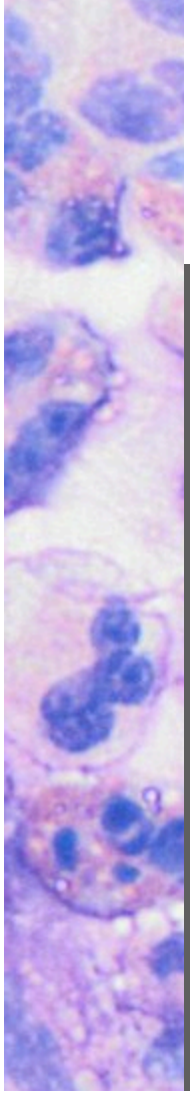
Then one final study, on the topic of challenging the status quo, and even more physiology…

Beneficial Effect of Calcium Treatment for Hyperkalemia Is Not Due to “Membrane Stabilization”
Critical Care Medicine
https://journals.lww.com/ccmjournal/abstract/9900/beneficial_effect_of_calcium_treatment_for.359.aspx

All the best!

Simon

Simon Cook BSc BVSc MVetMed DACVECC DECVECC FHEA MRCVS
RCVS recognised specialist in emergency and critical care



View Recent Articles

Quick Links

Emergency & Critical Care
Neurology
Internal Medicine
Nursing
Equine

Point of care ultrasound
Feline infectious peritonitis
Urethral obstructions

Journal of Veterinary Internal Medicine
Journal of Small Animal Practice
Journal of Veterinary Emergency & Critical Care
Journal of Feline Medicine and Surgery