

I N F O R M A Č N Ý
sprievodajca



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**Kliešte
na Slovensku**

Nesteroidné
antiflogistiká u mačiek

Aujeszkyho choroba
u poľovných psov

Hipiatria na Slovensku
očami SVL

XVI. Kongres KVL SR



Lymfóm u psa

foto: Šárka Votavová

V spolupráci s Wiley-Blackwell vám opäť na jednom mieste prinášame výber abstraktov najnovších vedeckých publikácií z rôznych oblastí veterinárnej medicíny a karentových časopisov Willey-Blackwell relevantných pre klinickú prax z rôznych oblastí veterinárnej medicíny.



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Selected Veterinary Clinical Abstracts

Pasireotide for the Medical Management of Feline Hypersomatotropism.

Scudder, C.J., Gostelow, R., Forcada, Y., Schmid, H.A., Church, D. and Niessen, S.J.M. (2015)

Journal of Veterinary Internal Medicine, 29: 1074–1080

Hypersomatotropism or acromegaly is known to be a cause of diabetes mellitus in cats, and recent research has revealed it to be more common than previously suspected. This study investigated the use of the human drug pasireotide for the medical management of feline hypersomatotropism (HST). Pituitary enlargement and insulin-like growth factor-1 (IGF-1) were used to diagnose the condition. 12 hour blood glucose curves were performed on days 1 and 5 to assess glycaemic control, and

on days 2, 3 and 4 the cats were given pasireotide. IGF-1, insulin dose and an estimate of insulin sensitivity (area under the blood glucose curve multiplied by insulin dose) were compared before and after treatment. IGF-1 decreased in all the twelve cats that completed the study, and the insulin dose was lower on day 5 than on day 1, with a mean dose reduction of 1.3 units/kg/injection. No important adverse effects were seen. The authors conclude that pasireotide decreases IGF-1 in cats with HST and diabetes mellitus, and improves insulin sensitivity.

Bottom line: Pasireotide shows promise at improving the medical treatment of cats with diabetes mellitus and acromegaly.

Effect of Feeding an Iodine-Restricted Diet in Cats with Spontaneous Hyperthyroidism.

Hui, T.Y., Bruyette, D.S., Moore, G.E. and Scott-Moncrieff, J.C. (2015)

Journal of Veterinary Internal Medicine, 29, 1063–1068

An iodine-restricted diet is now commercially available for use in the management of feline hyperthyroidism. This study aimed to assess the effect of feeding an iodine-restricted diet on the total thyroxine (TT4) concentrations and the clinical signs of cats with spontaneous hyperthyroidism. 49 cats with the condition were included in this retrospective case series. The cats were fed the commercially available iodine-restricted diet exclusively, and weight, heart rate, TT4, urea and cre-

atinine concentrations were assessed during treatment. In 83% of cases, serum TT4 normalised within 6 months. Cats with higher starting TT4 levels took longer to stabilise. However, an increase in body weight or decrease in heart rate were not found in the treated cats, but creatinine did decrease. The authors conclude that restricted iodine diets are effective at maintaining TT4 levels in hyperthyroid cats, but not all clinical signs of hyperthyroidism were found to improve with this treatment.

Bottom line: A restricted-iodine diet is able to reduced total T4 to reference ranges in the majority of cats with hyperthyroidism.



Associations between ultrasound and clinical findings in 87 cats with urethral obstructions.

Nevins, J. R., Mai, W. and Thomas, E. (2015), *Veterinary Radiology & Ultrasound*, 56, 439–447

Urethral obstruction is a life-threatening and painful emergency, seen frequently in cats with lower urinary tract disease. This retrospective cross-sectional study examined ultrasound findings in cats following urethral obstruction, and assessed whether any of these findings could determine risk for reobstruction. 87 cats were included in the study, with inclusion criteria of a physical examination and history consistent with urinary tract obstruction, a urinary ultrasound examination within 24 hour of hospitalisation and no cystocentesis prior to urinary tract ultrasound. Ultrasound findings commonly included bladder wall thickening, urine sediment and an increased echogenicity of the fat around the bladder. Renomegaly and ureteral dilation were also often noted. 21 out of 61 cats for which records were available had reobstructed within 6 months. No ultrasound findings were associated with an increased risk of reobstruction. A perirenal effusion was associated with severe hyperkalaemia.

Bottom line: Ultrasound may be a useful tool in planning treatment of cats with urethral obstruction, but does not provide information on the chance of reobstruction.



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Serum cardiac troponin I concentrations decrease following treatment of primary immune-mediated haemolytic anaemia.

Cartwright, J. A., Gow, D. J., Gow, A. G., Handel, I., Reed, N., Brown, A. J., Cash, R., Foote, A., Mackenzie, D., Bell, R. and Mellanby, R. J. (2015) *Journal of Small Animal Practice*, 56, 516–520

Serum cardiac troponin I is a useful marker of cardiac damage and can aid in the diagnosis of various cardiac diseases. However, it is also elevated in a variety of non-cardiac conditions, presumably because of secondary damage to the cardiac muscle. This study aimed to assess cardiac troponin I concentrations in dogs with immune-mediated haemolytic anaemia (IMHA) and follow the levels as treatment progressed. Nineteen dogs with primary IMHA were included in the study, and haematology and cardiac troponin I concentration were measured before and after treatment. Haematocrit was found to increase significantly over the treatment period, and cardiac troponin I levels decreased significantly.

The prognostic significance of these findings would need further investigation.

Bottom line: Cardiac troponin I levels are elevated in cases of IMHA but decrease following treatment.



Differentiation between inflammatory and neoplastic orbital conditions based on computed tomographic signs.

Lederer, K., Ludewig, E., Hechinger, H., Parry, A. T., Lamb, C. R. and Kneissl, S. (2015)

Veterinary Ophthalmology, 18, 271–275
The diagnosis of orbital disease can be greatly aided by the use of advanced imaging such as computed tomography (CT) or magnetic resonance imaging (MRI). This case-control study aimed to identify CT signs that could aid in the discrimination of neoplastic and inflammatory orbital disease. 25 cats, 21 dogs, 4 rabbits and 2 rodents were included in the study. 11 had inflammatory disease, 31 had neoplasia and 10 were normal controls, and these were blindly reviewed. The overall agreement between observers for the presence or absence of abnormal CT signs was poor to moderate, though better for observations of the orbital bones and where there was posterior segment involvement. Fat stranding was found to be significantly associated with inflammatory conditions. Abnormalities affecting the orbital bones and anterior ocular structures were found to be predictive for neoplasia.

Bottom line: CT has a high specificity, but low observer agreement is likely a consequence of the resolution possible for small orbital structures.



Evaluation of lymph node aspirates at diagnosis and relapse in dogs with high-grade multicentric lymphoma and comparison with survival time.

Munasinghe, L. I., Kidney, B. A., MacDonald-Dickinson, V., Larson, V. S., Jackson, M. L. and Fernandez, N. J. (2015) *Veterinary Clinical Pathology*, 44, 310–319

Multicentric lymphoma in dogs often has a good short to medium term response to chemotherapy. However, relapse is common. Diagnosis is frequently made with cytology, and this study aimed to compare the cytological features of lymph node aspirates at initial diagnosis and at relapse, and assess whether these carried any prognostic significance. The number of mitoses and the scores based on morphometry were significantly higher in the samples taken from relapsed cases compared to the ones taken at original diagnosis. The presence of bi- or multinucleated cells at the time of diagnosis was associated with a shorter remission and overall survival time. However, increased mean nucleoli count at relapse was associated with a longer remission and overall survival.

Bottom line: The presence of bi- or multinucleated cells at initial diagnosis may have prognostic significance in canine lymphoma.

Identification of a third feline *Demodex* species through partial sequencing of the 16S rDNA and frequency of *Demodex* species in 74 cats using a PCR assay

Ferreira, D., Sastre, N., Ravera, I., Altet, L., Francino, O., Bardagí, M. and Ferrer, L. (2015), *Veterinary Dermatology*, 26, 239–e53.

Demodex cati and *Demodex gatoi* are known *Demodex* species that affect cats. However, other *Demodex* organisms have been reported on cats that are morphologically different from these two species. This study developed a PCR technique to identify feline *Demodex* mites. Samples were

taken from *D. cati*, *D. gatoi* and the third morphologically distinct *Demodex* and DNA samples were amplified and sequenced. The third species was found to be genetically distinct from *D. gatoi* and *D. cati*.

Bottom line: There are three *Demodex* species found in cats, with the third one as yet unnamed.

Peripheral blood abnormalities and bone marrow infiltration in canine large B-cell lymphoma: is there a link?

Martini, V., Melzi, E., Comazzi, S. and Gelain, M. E. (2015) *Veterinary and Comparative Oncology*, 13, 117–123

It is not generally considered mandatory to perform bone marrow assessment when staging canine lymphoma unless peripheral cytopenias are present. This study aimed to assess whether abnormalities in circulating cells was predictive of bone marrow involvement in large B-cell lymphoma in dogs. Flow cytometry was used to assess bone marrow infiltration. No differences were found between dogs with and without haematological abnormalities. However, there was an increased degree of bone marrow infiltration in dogs with thrombocytopenia or leucocytosis.

The authors concluded that blood abnormalities are not always able to predict bone marrow involvement. The authors therefore recommend bone marrow assessment in routine staging of canine B cell lymphoma, although they note that the clinical relevance and prognostic value of bone marrow assessment is not yet known.

Bottom line: Haematological abnormalities do not always accurately reflect bone marrow abnormalities in canine lymphoma

Treatment of Equine Metabolic Syndrome: A Clinical Case Series

Morgan R.A, Keen J.A and McGowan C.M (2015) *Equine Veterinary Journal*

This study evaluated the efficacy of a weight loss and exercise plan employed by owners under veterinary guidance for treatment of Equine Metabolic Syndrome (EMS). On admission to the participating clinics, each horse underwent clinical examination, body condition scoring (BCS), basal ACTH blood sample and a combined glucose-insulin tolerance test. Horses with pituitary pars intermedia dysfunction were excluded from the study.

Bottom line: An individual weight loss and exercise plan tailored to horse/owner circumstances and regular contact with the primary clinician, maximising owner compliance, achieves metabolically significant levels of weight loss in the treatment of EMS.

An ultrasonographic scoring method for transabdominal monitoring of ascarid burdens in foals

Nielson M.K, Donohughe E.M, Stephens M.L, Stowe C.J, Donecker J.M and Fenger C.K (2015) *Equine Veterinary Journal*

High ascarid burdens can lead to impaction and adversely affect foal welfare and lead to costly interventions. The aims of this study were to develop a technique for quantifying ascarid burdens in foals and use this in a treatment study and cost-benefit analysis.

Bottom line: A scoring system using a straightforward, quick and potentially cost-effective ultrasonographic technique can be used to reliably detect clinically significant ascarid burdens in.x