INCREASES URINARY N-ACETYL-BETA-D-GLUCOSAMINE

patients with normal SCr and altered SDMA require a further view, especially at the first clinical presentation. Furthermore, management of CKD but the evaluation of other markers of renal mal and creatinine slightly increased in 1 (1.1%) dog.

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in 51 (53.7%) dogs; in 8 (15.7%) of these, SDMA was equal to modified IRIS staging in 12 (12.6%) dogs. SDMA was increased including in stage 0, 39 (41%) in stage 1, 12 (12.6%) in stage 2, 17

ing, according to SCr, resulted as follows: 26 (27.4%) dogs were

was done in 60 dogs. All the dogs were staged according to the IRIS guidelines. Statistical analysis was performed by JMP 7 soft-
ware (SAS Institute Inc., Cary, USA).

SDMA showed, as expected, a significant correlation with SCr, urine specific gravity (USG) and UPC ratio (P < 0.05). IRIS staging, according to SCr, resulted as follows: 26 (27.4%) dogs were included in stage 0, 39 (41%) in stage 1, 12 (12.6%) in stage 2, 17 (17.9%) in stage 3 and 1 (1.1%) in stage 4. SDMA evaluation modified IRIS staging in 12 (12.6%) dogs. SDMA was increased in 51 (53.7%) dogs; in 8 (15.7%) of these, SDMA was equal to the cut-off value (14 μg/dL). In 29 (56.9%) of the “high SDMA” cases, SCr was >1.4 mg/dL while in the others 22 (43.1%) there were already one or more alterations: decrease of USG in 14 (63.6%) of 22 cases, increase of UPC ratio in 15 (68.2%) cases, ultrasonographic suggestion of CKD in 9 (40.1%) cases. SDMA was the only altered parameter in 4 (4.2%) dogs. SDMA was normal and creatinine slightly increased in 1 (1.1%) dog. A stepwise parameter for the diagnosis and management of CKD but the evaluation of other markers of renal function and diagnostic imaging are essential in order to correctly approach the patient from the diagnostic and therapeutic point of view, especially at the first clinical presentation. Furthermore, patients with normal SCr and altered SDMA require a further evaluations to confirm the development of CKD.

Disclosures: No disclosures to report.

ESVNU – P – 6
ULTRASOUND-GUIDED RENAL BIOPSY SIGNIFICANTLY INCREASES RENAL N-Acetyl-Beta-D-Glucosamine Index Activity in Dogs with Diffuse Parenchymal Nephropathies.

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Ultrasound guided renal biopsy is an essential diagnostics method which, by facilitating histopathological examination can increase the accuracy of the differential diagnosis between acute and chronic nephropathies and will help the clinician perform an etiologic diagnosis, issue a prognosis and orient the therapy of the majority of parenchymal nephropathies. Due to the relative invasiveness and potential adverse effects, the use of renal biopsy is limited among practitioners. In this study we evaluate the intensity of renal damage induced by renal cortex sampling and the clinical consequences of such a procedure. We examined 28 dogs, mixed breed and variable ages, 11 (39, 29 %) males and 17 (60, 71 %) females that were referred to our clinic and underwent ultrasound guided renal biopsy in order to establish a definite diagnosis.

Patients were presented with a variety of diffuse nephropathies: kidney lymphoma: 1 (3.57%), glomerulonephritis: 13 (46.43%), tubulointerstitial nephritis: 11 (39.29 %) and nephrocalcinosis: 3 (10.71%) of which 15 (42.99 %) were in acute kidney failure and 10 (35.71 %) were chronic renal patients. The type and the severity of renal lesions were correlated with changes in urinary NAG index (iNAG), and specific serum renal damage markers such as urea, creatinine, phosphorus and ionized calcium. To quantify the side effects of percutaneous renal biopsy the magnitude of post biopsy hematuria and changes in urinary iNAG activity were evaluated. The results indicate a significant post biopsy increase in urinary iNAG activity in all patients that underwent this procedure (100.08 ± 34.45 (U/g) pre-biopsy vs. 147.65 ± 33.26 (U/g) post-biopsy iNAG, P < 0.001) suggesting an intensification in renal tubular damage consecutive to kidney puncture and sampling.

Transitory macro- or microhematuria were constant findings in all dogs that underwent ultrasound guided renal biopsy but the magnitude and extent could not be associated with PLT(10^9/L), aPTT (s) and PT (s) levels in our patients, and resolved after 12–24 h without therapeutic interventions.

Percutaneous ultrasound guided renal biopsy is a relatively safe minimal invasive diagnostic procedure which will induce a series deleterious effects on system functionality and future safety is of greater importance than the complications associated the sampling procedure.

Disclosures: No disclosures to report.

ESVONC – P – 2
EVALUATION OF INFECTIVE AND REPLICATIVE PROPERTIES OF A REPLICATION-SELECTIVE ONCOLYTIC VACCINIA VIRUS (VVTG17990) ON CANINE, FELINE, PORCINE AND HUMAN CELL LINES.

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Symmetric dimethylarginine (SDMA) has been proposed as a sensitive and specific renal biomarker whose concentration increases earlier than serum creatinine (SCr) as glomerular filtration rate decreases. SDMA is a promising parameter in the diagnosis and management of chronic kidney disease (CKD) and it is included into the International Renal Interest Society (IRIS) guidelines. The aim of the study is to assess the usefulness of a single determination of SDMA in the evaluation of renal status in dogs at risk or affected with CKD, and to evaluate its correlation with SCr and other parameters of renal function.

Ninety-five dogs were consecutively selected among patients referred to the University Veterinary Hospital of Milan. On the first clinical examination, all these dogs underwent to physical examination, hematology and blood biochemistry (including serum SDMA and SCr). Urinalysis and urinary protein:creatinine ratio (UPC) were performed in 89 cases while ultrasound examination was done in 60 dogs. All the dogs were staged according to the IRIS guidelines. Statistical analysis was performed by JMP 7 soft-

ware (SAS Institute Inc., Cary, USA).

SDMA showed, as expected, a significant correlation with SCr, urine specific gravity (USG) and UPC ratio (P < 0.05). IRIS stag-
ing, according to SCr, resulted as follows: 26 (27.4%) dogs were included in stage 0, 39 (41%) in stage 1, 12 (12.6%) in stage 2, 17 (17.9%) in stage 3 and 1 (1.1%) in stage 4. SDMA evaluation modified IRIS staging in 12 (12.6%) dogs. SDMA was increased in 51 (53.7%) dogs; in 8 (15.7%) of these, SDMA was equal to the cut-off value (14 μg/dL). In 29 (56.9%) of the “high SDMA” cases, SCr was >1.4 mg/dL while in the others 22 (43.1%) there were already one or more alterations: decrease of USG in 14 (63.6%) of 22 cases, increase of UPC ratio in 15 (68.2%) cases, ultrasonographic suggestion of CKD in 9 (40.1%) cases. SDMA was the only altered parameter in 4 (4.2%) dogs. SDMA was normal and creatinine slightly increased in 1 (1.1%) dog.

A stepwise parameter for the diagnosis and management of CKD but the evaluation of other markers of renal function and diagnostic imaging are essential in order to correctly approach the patient from the diagnostic and therapeutic point of view, especially at the first clinical presentation. Furthermore, patients with normal SCr and altered SDMA require a further evaluations to confirm the development of CKD.

Disclosures: No disclosures to report.