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MICROALBUMINURIA AS A RISK FACTOR IN DOGS WITH CARDIOVASCULAR DISORDERS: A PRELIMINARY REPORT

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Increased albumin excretion is often a concomitant of several unfavorable metabolic and nonmetabolic risk factors that indicates the presence of subclinical organ damage at the renal and cardiac level. Because of unique ability to reflect many clinically relevant abnormalities, microalbuminuria (MA) is currently considered as a marker of cardiovascular risk in human medicine. The present study was therefore initiated in an attempt to clarify the relationship between blood pressure, urine protein/creatinine ratio and MA in dogs with cardiovascular disorders (CVD). Totally 25 dogs with complaints such as coughing, weakness, exercise intolerance referred to our clinic were included in this study. Microalbuminuria (E.R.D.-Health Screen Test), urine protein/creatinine ratio and blood pressure measurement (HDO) levels were detected in every patient. Serum BUN, creatinine, glucose, LDH, CK, K and urine analysis were assessed. CVDs were determined as mitral valve disease (n=14), dilated cardiomyopathy (n=6), myocardial disease (n=1), tricuspid valve disease (n=2), aortic stenosis (n=1) and ventricular septal defect (n=1). 13 of 25 had also diabetes mellitus (n=2), lower urinary tract disease (n=10) and chronic renal failure (n=1). MA was detected as positively in 16 dogs with different levels. 12 of these dogs with only CVDs had positive results for MA. Positive correlations were also detected between LDH and CK ($r=0.81$, $p<0.01$), seum creatinine and glucose ($r=0.57$, $p<0.01$), serum creatinine and BUN levels ($r=0.52$, $p<0.05$). It is emphasized that microalbuminuria has been shown as a marker to predict the risk of cardiovascular disorders in dogs.