Abstract

The described reference values for creatinine in dogs are variable, and for its establishment, the volume of the muscle mass where they belong has not been taken into account. For that reason, the influence of the body mass on the values of serum creatinine in a sample of 123 adult normal weighted dogs was investigated. The dogs were separated in three groups according to their body mass. The technique of Jaffé was used to determine the serum creatinine and a veterinary electronic balance with rank of measurement 0.3 to 300 kg was also used to calculate the body mass. The creatinine values found were: Dogs of Class I (<10 kg): 53.0 ± 18.6 umol/L (0.60 ± 0.21 mg/dL); Dogs of Class II (10 - 25 kg): 77.8 ± 26.5 umol/L (0.88 ± 0.30 mg/dL); and Dogs of Class III (>25 kg): 98.1 ± 32.7 umol/L (1.11 ± 0.37 mg/dL). Statistic differences were found between creatinine levels (P<0.0001). The Spearman ratio between body mass and serum creatinine was determined, obtaining a high positive and significant association between them (r=0.6037; P<0.00001). These results conclude that it is necessary to establish a reference value rank for serum creatinine in connection to the body mass, so that greater certainty can be given when originating and interpreting results for normal dogs against those with kidney malfunctions.

Keywords

Body mass, dogs, serum creatinine, reference values.