Supporting information not appearing in parent article.

Glomerular Filtration Rate

An empirical correction formula for GFR (Brochner-Mortensen[22] formula: $Cl = 0.990778$ $Cl_1 - 0.001218\ Cl_1^2$), normalized to body weight in kg, was applied to GFR values for healthy dogs and dogs with CKD. It has been shown that in most dogs (excluding small dogs < 6 kg with the highest GFR), GFR estimates predicted by use of a dog-specific correction formula[44] are closely related to the estimates predicted by use of the Brochner-Mortensen formula.[22,23] For healthy dogs, mean corrected GFR (median; range) was 4.32 mL/min/kg (3.93; 2.30-6.95 mL/min/kg). For CKD dogs, mean corrected GFR (median; range) was 1.36 mL/min/kg (1.43; 0.97-1.62 mL/min/kg). Corrected mean GFR estimates in both healthy and CKD dogs were within 1% of uncorrected values.

Corrected GFR using the dog-specific formula was previously reported to be ≤ 4 mL/min/kg whereas corrected GFR using the BM-formula was 60 to 100% higher in the smallest dogs with the highest GFR, i.e., one dog was approximately 8 mL/min/kg.[23] Therefore, we also used an upper threshold of ≤ 4 mL/min/kg in the healthy mature-adult dogs in our study for GFR values determined from four iohexol clearance tests per dog to better approximate what happens in small dogs with the highest GFR. Mean corrected GFR (median; range) was 3.68 mL/min/kg (3.93; 2.30 to 4.00 mL/min/kg).

Whether we used the standardized GFR values, or GFR values corrected with the BM formula or with an upper threshold to approximate the dog-specific formula, our conclusions remained the same. No dog with CKD had higher GFR than any healthy control dog, and serum SDMA ($r = -0.80$) and serum Cr ($r = -0.89$) concentrations were significantly correlated to GFR (both $P < .001$).

Symmetric Dimethylarginine

Serum SDMA concentrations were determined from banked serum frozen at -70 °C. The oldest serum sample used in this study was dated October 2007. There were several serum samples from 2009, but most serum samples were from 2010 or later. Most SDMA concentrations were determined at or prior to October 2014. Thus, sample storage time ranged from 1 week to 7 years.