

TABLE 2

Laboratory Findings and Their Proposed Pathogenesis in Dogs with Glucocorticoid Deficiency or Glucocorticoid and Mineralocorticoid Deficiency*

Abnormality	Proposed Pathogenesis	Glucocorticoid Deficiency	Glucocorticoid and Mineralocorticoid Deficiency
Serum Chemistry Profile			
Hyponatremia (Low sodium)	Decreased renal tubular reabsorption of sodium		●
	Vasopressin secretion	●	●
	Decreased sodium absorption from the colon	●	●
Hyperkalemia (High potassium)	Decreased renal tubular excretion of potassium		●
Hypochloremia (Low chloride)	Decreased renal tubular reabsorption of chloride		●
Azotemia (Such as high urea [BUN] & creatinine)	Decreased renal perfusion or ischemia-induced acute renal failure		●
Hypoalbuminemia (Low albumin)	Impaired nutrient absorption, protein-losing enteropathy, or decreased albumin production	●	●
Hypocholesterolemia (Low cholesterol)	Altered lipid absorption	●	●
Hypercalcemia (High calcium)	Decreased renal excretion of calcium and volume contraction		●
Hypoglycemia (Low glucose/blood sugar)	Lack of gluconeogenesis and increased uptake and use of glucose by peripheral tissues	●	●
Decreased total CO ₂	Anaerobic metabolism and decreased renal tubular hydrogen ion secretion		●
Increased ALT and AST	Decreased hepatic perfusion		●
Complete Blood Count			
Nonregenerative anemia	Blunted erythropoiesis and gastrointestinal hemorrhage	●	●
Lack of a stress leukogram (± eosinophilia and lymphocytosis) (Normal or high LYM & EOS)	Lack of cortisol-induced changes in marginating pool, bone marrow release, and apoptosis	●	●
Urinalysis			
Urine specific gravity < 1.030	Medullary washout	●	●

*Source: References 1, 4-8, 11-13, and 15.