Research Note:
Machine Learning Algorithm for Diagnosing Hypoadrenocorticism in Dogs

Canine hypoadrenocorticism (CHA) is a life-threatening condition that affects 3 out of every 1000 dogs. CHA mimics many disease processes, including kidney, hepatic, and GI disease. Prognosis is excellent with appropriate treatment. This study used machine learning methods to aid in the diagnosis of CHA. Results of CBC and serum chemistry profiles were collected from 908 control dogs and 133 dogs with confirmed CHA and used as data for the machine algorithms. The model showed a sensitivity of 96.3% and specificity of 97.2%. Although prospective studies are needed to validate these methods, they demonstrated diagnostic performance similar to resting cortisol values (regardless of glucocorticoid or mineralocorticoid deficiency status) and employed an easy-to-use graphic interface.

Source

Reagan KL, Reagan BA, Gilor C. Machine learning algorithm as a diagnostic tool for hypoadrenocorticism in dogs. *Domest Anim Endocrinol*. 2020;72:106396.