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THE RECURRENCE RATE OF ENDOCRINOPATHIC LAMINITIS

Introduction

The recurrence rate of endocrinopathic and pasture-associated laminitis is currently unknown. This study aimed to improve our understanding of the risk factors for, and the rate of, endocrinopathic laminitis recurrence.

Materials and Methods

A prospective, longitudinal cohort study of horses/ponies with veterinary-diagnosed laminitis was undertaken with ethical approval (1300000744). Cases of endocrinopathic laminitis were identified using history, basal serum insulin and plasma ACTH concentrations, clinical examination and phenotype. All cases were followed for 2 years after diagnosis.

Results

The cohort (n=301; 151M/150F; 15 [11-20] years) consisted of cases with pituitary pars intermedia dysfunction (PPID), equine metabolic syndrome (EMS), pasture-associated laminitis or any combination of these. Most cases (n=267) were followed for 2 years, with a laminitis recurrence of 34.1%. When cases had concurrent PPID and EMS their median serum insulin concentration was higher (47 [19-128] μ U/mL; $P < 0.05$) than cases with a single underlying endocrinopathy. Insulin concentration was positively correlated ($P = 0.05$) with Obel laminitis grade. However, the basal insulin concentration at diagnosis was not significantly different between animals whose laminitis recurred (24.5 [7.75-73.5] μ U/mL), and those whose didn't (19 [5-54] μ U/mL).

Discussion

Endocrinopathic laminitis recurred in a third of cases. Veterinarians and farriers should undertake ongoing monitoring of laminitis patients to ensure continuation of treatment and prevention strategies, such as dietary management, in an attempt to prevent recurrence. The more significant hyperinsulinaemia associated with concurrent PPID and EMS may increase laminitis risk and severity, but basal insulin concentration may not be useful in predicting the likelihood of recurrence.