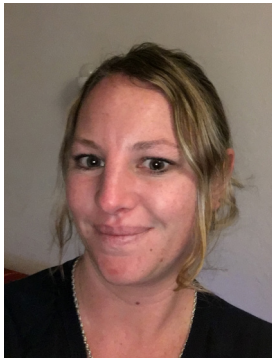
EQUINE SHORT COMMUNICATIONS (BEVA AND XCELLENT HORSE INSURANCE AWARD)



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PLASMATIC DGGR-LIPASE ACTIVITY IN 32 HORSES AFFECTED WITH DYSENDOCRINIAS

Pancreatic disease has been associated with primary dysendocrinias in several animal species while it is uncommonly identified in horses possibly due to non-specific clinical signs and a lack of specific biochemical markers [1,2]. Recently, a lipase activity assay (DGGR) has been tested in horses [3, 4]. The objective of this prospective study was to assess if plasmatic DGGR-Lipase activity could detect pancreatic disease secondary to equine endocrine conditions.

Thirty two cases presenting one or two dysendocrinias (PPID*, n=21 ; EMS**, n=5 ; and/or hyperlipemia, n=13) were included between 2015 and 2016. Two equine populations were used as control: 99 healthy horses based on clinical examination and blood work (healthy control) and 14 old horses (>15 years) tested negatively for dysendocrinia (aged control). Results were compared with a Mann and Whitney test with a level of significance set at 0.05.

The reference range for plasmatic DGGR-Lipase activity in the control group was 3-22 U/L. The median plasmatic DGGR-Lipase activity was 15 [6-163], 10 [6-16], 19 [10-163], U/L in PPID, EMS and hyperlipemic horses respectively. Four horses had an increased activity of the DGGR-Lipase (> 22 U/L) and concurrently presented abdominal pain due to enterocolitis, hepatitis and/or large colon displacement.

DGGR-Lipase activity was not different between control groups and dysendocrinic horses taken altogether or by dysendocrinia (PPID, EMS, hyperlipemia). There was no significant difference between dysendocrinias. Pairing old control to PPID horses, no difference was found.

Apart from the 4 horses with abdominal pain, plasmatic DGGR-Lipase activity was not increased in dysendocrinopathic horses suggesting that pancreatic disease may not be significant in the studied population. Further studies with a larger number of cases are warranted to assess the reliability of plasmatic-Lipase activity in confirming pancreatitis in equine species and to rule out pancreatitis in association with primary dysendocrinias.

* PPID : Pituitary Pars Intermedia Dysfunction
** EMS = Equine Metabolic Syndrome

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