#SPILLERSScience: New PPID research receives special recognition by leading veterinary journal
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New research published by The University of Melbourne in partnership with SPILLERS, has been selected as one of the most clinically relevant pieces of research published in the Equine Veterinary Journal’s early view section this month.

The study, which evaluated the effect of pergolide mesylate on insulin dysregulation, is helping to improve our knowledge of how best to treat and monitor pituitary pars

intermedia dysfunction (PPID: also known as Cushing’s syndrome), and forms part of ongoing work to help senior horses live happier, healthier lives for longer.

PPID, ID, laminitis & pergolide

Many horses and ponies with PPID are insulin dysregulated, putting them at increased risk of laminitis. In fact, laminitis associated with a high concentration of insulin in the blood (hyperinsulinemia) is now thought to be the most common form of laminitis in the UK. The exact link between PPID and insulin dysregulation (ID) is unclear – not all horses with PPID have ID and not all horses with ID have PPID! However, it’s thought that when the two conditions exist together, PPID may exacerbate ID.

Pergolide mesylate is the most common drug used to treat PPID and has been shown to be effective in managing some of the main associated clinical signs. As laminitis is such a painful and potentially devasting condition, the researchers in this study were keen to find out whether pergolide might help to reduce ID.

New research

As part of this study, 16 senior horses, eight with PPID and ID and eight with ID only, took part in a standard meal test. This involved measuring the concentration of insulin in their blood before and after eating a high starch meal. By the end of the study, all horses had completed the standard meal test twice, once after 4-weeks of pergolide treatment and once without pergolide treatment.

- Pergolide treatment reduced blood insulin levels after eating in horses with PPID and ID
- Pergolide treatment had no effect on blood insulin levels in horses with ID only

What does this mean?

The results of this study are encouraging as they suggest that pergolide may limit the amount of insulin produced in response to eating in horses and ponies that have PPID in addition to ID which in turn, may help to reduce their risk of laminitis. However, feeding a diet low in starch and sugar is still very important for horses with PPID and/ or ID because:

- Even when treated with pergolide, the horses in this study produced higher levels of insulin in response to eating a starch and sugar rich meal than we see in healthy horses

- Pergolide had no effect on blood insulin levels in horses with ID only

PPID and ID must be tested for and if necessary, treated separately. The fact that horses with ID only did not respond to pergolide shows that managing one condition will not necessarily manage the other.

If you're concerned about the possibility of PPID and/ or ID, speak to your vet for advice so that suitable management and/ or treatment can be started as soon as possible.

For specific feed and management advice reach out to our team of friendly nutrition specialists on 01908 226626 or you can fill in our online consultation form.

Further reading

The full research paper is published in the Equine Veterinary Journal and is available to view online for free here

Reference

Galinelli NC, Bamford NJ, Erdody ML, Mackenzie SA, Warnken T, Harris PA, et al. Effect of pergolide treatment on insulin dysregulation in horses and ponies with pituitary pars intermedia dysfunction. *Equine Vet J*. 2025. https://doi.org/10.1111/evj.14468
