In horses with pituitary pars intermedia dysfunction and laminitis, does treatment with pergolide improve signs of laminitis?

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Background
Pituitary pars intermedia dysfunction (PPID) is common in older horses. It is associated with various clinical signs including laminitis. Cases of PPID with laminitis are frequently treated with pergolide to improve clinical signs and/or frequency of laminitis.

Objectives
To examine whether, in horses with PPID and laminitis, available evidence shows that treatment with pergolide reduces the severity or frequency of laminitis.

Clinical Bottom Line
At present there is insufficient evidence to determine whether pergolide improves the clinical signs of laminitis in cases of PPID with laminitis. Robust clinical trials are required.

Search Strategy
Literature searches were performed using Pubmed, CAB Abstracts and Google Scholar from inception to 28/4/14. Search terms were: pergolide AND equine, pergolide AND laminitis and equine AND pituitary AND pars-intermedia AND dysfunction AND treatment. Requests for unpublished data were made to the Veterinary Medicines Directorate and Boehringer Ingelheim.

Selection Criteria
English language, peer reviewed articles describing the treatment of PPID and laminitis were included if clinical signs of laminitis were reported before and after treatment. Expert opinion and reports describing fewer than three cases were excluded.

Data Collection and Analysis
One author reviewed the included studies to assess the quality of the evidence using established guidelines from human medicine [1, 2].

Results
No high quality studies were found. Two analytical observational studies [3, 4] and two descriptive studies [5, 6] were retrieved in which cases of PPID and laminitis formed a subset of PPID cases. All included studies were considered to be at high risk of bias and none were comprehensively reported. Specific factors that reduced the quality of the available evidence included: study design, reported clinician bias, an absence of blinding and randomisation, inappropriate statistical analysis, small sample sizes and absent data on concurrent treatments. Signs of laminitis improved in most cases of PPID and laminitis that received pergolide (and in most cases that received cyproheptadine instead).

Robust assessments of treatment efficacy could not be made.

Conclusions
The available evidence is limited. Laminitis improved in most cases that received pergolide but improvement cannot be attributed to pergolide treatment. Rigorous clinical trials are indicated given the welfare burden of laminitis with PPID. Evidence-based scrutiny of other commonly used equine treatments is warranted.

References