

Prevalence of and behavioural risk factors for colic in a population of crib-biting horses



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Introduction:

Horses that display crib-biting behaviour (defined as cribbing and/ or windsucking behaviour) have been shown to be at increased risk a simple colonic obstruction /distention colic[1] and epiploic foramen entrapment [2]. Based on the results of previous research, some workers have questioned whether horses that display this form of stereotypic behaviour are truly at increased risk of colic [3]. However, there is some evidence that there may be an association between crib-biting and risk of colic in general [4].

Objectives:

The aim of this study was to determine the prevalence of colic in a population of horses that display crib-biting behaviour and to investigate whether a history of colic was associated with specific features of this behaviour (e.g. frequency of crib-biting).

Results:

Data were obtained for a total of 371 horses. Of these horses 127 (36.6%) were reported to have had an episode of colic whilst under the ownership / care of the respondent.

For all horses who had been under their care for at least 12 months (n=334):

- 70 horses had a total of 137 colic episodes in the previous 12 months (21% period prevalence)
- 37% of these horses had 2 or more episodes of colic within this time
- There were a total of 79 veterinary attended colic episodes in 47 horses during the previous 12 months (16% period prevalence)
- 76% of veterinary attended colic cases required medical treatment and 3% required surgical intervention

Conclusions:

Approximately one third of horses in a population of crib-biting horses in the UK had a history of one or more episodes of colic. Within a 12 month period, the number of colic episodes in this population was greater than would be expected in the same number of horses within the general equine population over the same period of time [5]. This adds to the evidence that crib-biting horses may be at increased risk of colic in general. In addition, the frequency with which crib-biting behaviour is displayed may have an effect on the risk of colic which merits further investigation.

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References :[1] Hillyer MH, Taylor FGR, Proudman CJ, Edwards GB, Smith JE, French NP. (2002) *Equine Vet J* 34, 455-463. [2]. Archer DC, Freeman DE, Doyle AJ, Proudman C, Edwards GB. (2004) *Am Vet Med Assoc* 224, 562-564. [3] Bracher V, Stohler T. (1998) *Equine vet J Supp.* 27, 3. [4] Archer DC, Pinchbeck GL, French NP, Proudman CJ. (2008) *Equine vet J* 40, 405-410. [5] Cohen ND. (2004) *Equine Vet J* 35, 343-349.

Materials and methods:

Recruitment of participants

Adverts on websites, horse owner forums & horse magazine websites and via yards, farriers and veterinary surgeons. Participants not aware that colic was a key health issue that we wished to investigate.

Completion of postal questionnaire

Questions asked about various aspects of horse health, behaviour and management.

Data entry & analysis

Automated data entry. Generation of descriptive data and taking history of colic as the outcome of interest, odds ratios were calculated for categorical behavioural data.

Increased frequency of crib-biting behaviour observed was associated with increased likelihood that a horse had suffered from a previous colic episode.

Frequency of crib-biting behaviour	Odds Ratio	95% Confidence Interval	P value
Seen only a few times a week / on rare occasions	Ref.		
Seen daily but only for short periods of time (e.g. around feed time only)	2.8	1.3 – 6.0	0.01
Seen daily but for prolonged periods of time	5.1	2.1 – 12.2	<0.001

Table 1. The likelihood of a horse having a history of a previous colic episode (outcome) based on frequency of crib-biting behaviour observed.