

ASSOCIATION BETWEEN FLAX BEDDING AND ILEAL IMPACTIONS IN HORSES: RETROSPECTIVE ANALYSIS OF 2337 GASTROINTESTINAL CASES (2008-2017)

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While Coastal Bermuda hay is strongly associated with ileal impaction in the southeastern United States, stabling on flax bedding has anecdotally been associated with this condition in Europe. The aim of this study was to investigate the association between ileal impactions and the use of flax shives opposed to straw as bedding. Medical records of 2337 referral cases evaluated for abdominal pain between January 2008 and May 2017 were reviewed. Diagnosis, date of admission, age, breed, gender, weight, stall bedding and outcome were recorded. The association between bedding and ileal impaction was evaluated by a Chi square test; the odds ratio (OR) and its 95% confidence interval (CI) was calculated. The proportion of cases stabled on flax bedding was 11.4%. The overall prevalence of ileal impactions was 4.2%. In the flax group, the prevalence of ileal impaction was 9.4% as opposed to 3.6% in the straw group. The OR (2.83; 95% CI, 1.83-4.40; $P < 0.001$) indicated that horses stabled on flax bedding were approximately 3 times more likely to have ileal impaction compared to horses stabled on straw. No significant association for date of admission, age, breed, gender and weight was found in a multivariate model. Survival to discharge was 72.5% in the medically treated group compared to 76.7% in the surgically treated group. No significant association was found between survival to discharge and type of bedding. These results suggest that horses housed on flax bedding were more likely to develop ileal impaction compared to horses on straw.

Keywords: *Colic - Equine - Flax shives - Ileal impaction*