

Publication

Assessment of the excretion time of electronic capsules placed in the intestinal lumen of cows with cecal dilatation-dislocation, healthy control cows, and cows with left displacement of the abomasum

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 2827957

Author(s) Devaux, David J-A L; Lempen, Markus; Schelling, Esther; Koch, Volker M; Meylan, Mireille

Author(s) at UniBasel [Schelling, Esther](#) ;

Year 2015

Title Assessment of the excretion time of electronic capsules placed in the intestinal lumen of cows with cecal dilatation-dislocation, healthy control cows, and cows with left displacement of the abomasum

Journal American journal of veterinary research

Volume 76

Number 1

Pages / Article-Number 60-9

OBJECTIVE To analyze the transit time from various locations in the intestines of cows with cecal dilatation-dislocation (CDD), healthy control cows, and cows with left displacement of the abomasum (LDA). **ANIMALS** 15 cows with naturally occurring CDD (group 1), 14 healthy control cows (group 2), and 18 cows with LDA (group 3). **PROCEDURES** 5 electronic transmitters were encased in capsules and placed in the lumen of the ileum, cecum, proximal portion of the colon, and 2 locations in the spiral colon (colon 1 and colon 2) and used to measure the transit time (ie, time between placement in the lumen and excretion of the capsules from the rectum). Excretion time of the capsules from each intestinal segment was compared among groups. **RESULTS** Cows recovered well from surgery, except for 1 cow with relapse of CDD 4 days after surgery and 2 cows with incisional infection. High variability in capsule excretion times was observed for all examined intestinal segments in all groups. Significant differences were detected for the excretion time from the colon (greater in cows with CDD than in healthy control cows) and cecum (less in cows with LDA than in cows of the other 2 groups). **CONCLUSIONS AND CLINICAL RELEVANCE** The technique developed to measure excretion time of capsules from bovine intestines was safe and reliable; however, the large variability observed for all intestinal segments and all groups would appear to be a limitation for its use in assessment of intestinal transit time of cattle in future studies.

Publisher AMER VETERINARY MEDICAL ASSOC

ISSN/ISBN 0002-9645

edoc-URL <http://edoc.unibas.ch/dok/A6337860>

Full Text on edoc No;

Digital Object Identifier DOI 10.2460/ajvr.76.1.60

PubMed ID <http://www.ncbi.nlm.nih.gov/pubmed/25535662>

ISI-Number WOS:000351422900006

Document type (ISI) Journal Article