

Preliminary study to evaluate the use of Fast Abdominal Ultrasonography of Horses with Colic in First Opinion Ambulatory Practice.

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Abstract

Background: Colic is the commonest emergency in first opinion equine practice. Early referral is important for horses requiring surgery. Fast localised abdominal ultrasonography of horses (FLASH) is frequently used as a diagnostic tool in the investigation of colic at referral hospitals, but its use in first opinion practice has not been evaluated. Objective: To assess the value of FLASH scanning in the primary assessment of horses with colic in the field, using a portable wireless ultrasound system. Study design: Prospective study (2018-2021). Methods: Any horse examined for colic as an emergency in a first opinion ambulatory practice was eligible for inclusion in the study. A FLASH examination was performed using a wireless handheld ultrasound scanner, with the images displayed on a smartphone or tablet. The findings on FLASH scans and outcome of the case (recovered, referred for surgery or euthanised without referral) were recorded. Results: 135 equids with acute colic were evaluated. Of the 135 horses, 49 (36%) had an abnormal finding on FLASH scanning, including distended loops of small intestine (n=34), thickened small intestinal walls (n=23) and/or distension of the stomach (n=7). Reduced small intestinal motility was recorded in 52 animals (38%). Follow-up information was available in all animals: 50 (37%) were euthanised due to clinical deterioration and the owners' decision not to undertake surgery; 85/135 (63%) survived, including 5/85 (6%) that underwent surgery and 80/85 (94%) that resolved with medical management. Main limitations: Small number of cases. Lack of results of post-mortem examination of horses that were euthanised. Potential selection bias. Conclusion: The FLASH technique can be valuable in the primary assessment of horses with colic in first opinion ambulatory practice. Further evaluation with more cases is required.

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