

The "Reticular Grunt" Test for Traumatic Reticulo-peritonitis

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Previous observations by the author have shown that the cycle of reticulo-ruminal motility in normal adult cattle occurs in two phases:

1. A contraction of the reticulum, followed by a contraction of the rumen. Eructation of ruminal gases does *not* occur at this stage because the cardia region is flushed with ingesta.
2. Following relaxation of the reticulum and rumen, an independent contraction of the rumen occurs. This contraction is *accompanied by eructation*. Relaxation of the reticulum and rumen completes the cycle.

These two phases can easily be identified by observing the left flank where the dorsal rumen lies directly below the skin, muscles and peritoneum. Contractions of the rumen can easily be identified by observing or palpating this area. Immediately before eructation, the animal holds its breath and the act of eructation can be observed and the gurgling sound can easily be identified. The wave of eructation traveling up the esophagus can usually be observed in the neck.

The two phases of reticulo-ruminal motility usually occur on a 1:1 ratio. A reticulo ruminal contraction *without* eructation followed by a ruminal contraction *with* eructation. Variations in this ratio occur, depending on the degree of fullness of the rumen, type of feed etc.

The Reticular Grunt Test

Penetration of the wall of the reticulum by a sharp

object causes inflammation in the peritoneum covering this area. The animal will thus show evidence of pain, in the form of a grunt, during contractions of the reticulum.

The "reticular grunt" test is based on the correlation of pain with contractions of the reticulum. Since these contractions occur in conjunction with ruminal contractions, the clinician should carefully observe the animal and listen for a short stabbing grunt during these *non-eructating* ruminal contractions. The astute clinician can also detect other evidence of pain at this time, when the animal often shows discomfort by alternative slight lifting of the forefeet, (gentle "shuffling" of the forefeet).

Since some positive cases only show a mild grunt, the clinician will be more likely to detect it by carefully observing the left costal arch. The animal will hold its breath just before emitting a grunt.

This test was found to be reliable by the author in a study of 100 cases. It must be emphasized, however, that it can only be used in early cases of traumatic reticulo-peritonitis. Due to the remarkable resistance of the bovine peritoneum to infection, etc., grunting may not be detected 48 hours or so after the onset of symptoms. Ingestion of food in such cases may cause grunting.

The test is recommended as an exercise in 20/20 clinical vision, based on the clinical interpretation of fore-stomach motility.

Reference

Williams, Eric I.: Vet. Record, 67. 907 -922. (1955).



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