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Metabolic Diseases of Dairy Cattle - Displaced Abomasum¹

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Displaced abomasum (DA) is a repositioning of the abomasum (the fourth or true stomach) from its normal position on the right ventral abdominal wall. The abomasum becomes dilated with fluid and/or gas with subsequent migration to an abnormal position on the right or left side. Distention of the abomasum is caused primarily by gas and may be accompanied by an accumulation of fluid within the organ. Most displacements encountered are to the left.

Several authors have noted that DA occurs more frequently in high-producing, heavily fed dairy cattle, usually near parturition and possibly under stress. However, since the condition has been seen in heifers and bulls one cannot completely associate DA with parturition even though most cases occur within 30 days after freshening. The condition is occasionally seen in cows prior to freshening.

One of the chief symptoms of displacement is a sudden or gradual decrease in appetite. Cows have scanty bowel movements, soft and discolored with some occasional diarrhea. Cows may become weak and dehydrated and may fail to get up when prodded. Secondary ketosis usually develops unless the problem is corrected. About half of DA cows have

uterine infections. The distinguishing feature between DA and ketosis is the discolored and diarrhea-like condition frequently observed in DA cases and constipation with ketosis. The field test for acetone in milk and urine is strongly positive for ketotic cows but only slight with the occurrence of DA.

CAUSES OF DISPLACED ABOMASUM

The most common diagnostic finding is the "tinkle" or "ping" sound produced by the thumping of a finger over the last rib and listening on the left side for a characteristic pinging sound. A gas-filled rumen will also ping but the pitch is typically lower.

Several factors have been reported in the literature as possible causes of the condition. The type of ration being fed in combination with some type of infection seems to influence most DA cases. Several investigators have shown that high levels of concentrate in the diet decrease abomasal contractions by the increasing the amount of volatile fatty acids entering the abomasum. High concentrate rations fed near freshening could possibly lower

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abomasal motility and increase abomasal gas production, resulting in DA in some cows near parturition. Cows carrying excessive fat are more prone to DA than cows freshening in moderate to good condition.

Develop good feeding and management programs if there is an unusual number of DA cases near parturition. Provide adequate amounts of roughage to heavy springers and fresh cows. Cows in good condition during late lactation should be in a similar condition but not allowed to fatten during the dry period.

Treatment generally requires surgical correction and in most cases results in a rapid return to production. Other suggestions have been offered for correcting the problem. Causing the animal to scramble up an incline or simply rolling the cow has often proven successful. Rolling plus blind tacking or suturing of the abomasum is the choice for nonsurgical correction. However, most affected cows require surgery which usually results in a rapid return to production in uncomplicated cases.