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Left Displacement of the Abomasum

The ruminant stomach consists of four compartments, one of which is the glandular abomasum. The abomasum is normally positioned in the right ventral part of the abdomen, and is suspended loosely in situ by the greater and lesser omentum (a large fold of peritoneum). This loose attachment enables potential movement of the abomasum. Displacement occurs from its normal position either to the left (Left Displaced Abomasum; LDA), right (Right Displaced Abomasum; RDA) or it can rotate on itself whilst displaced to the right (abomasal volvulus/ torsion). The incidence of LDAs compared to RDAs is significantly greater so for the purpose of this report we will only concentrate on LDAs.

Causes;

Left displacement of the abomasum is a common condition and one which is frequently diagnosed in high yielding adult dairy cattle. The majority of cases occur within the first weeks – months of lactation although it can be seen at any stage. (Sporadic cases are found in beef animals, bulls and calves.) Essentially DAs occur due to a combination of both decreased abomasal motility and the production of gas however, the preceding disease process is multi-factorial. It has been suggested there is a genetic predisposition with deep bodied cows. The risk increases early postpartum which coincides with a multitude of occurrences that may contribute to gastrointestinal hypomotility and dilation of the abomasum.

Risk factors;

- **Decreased dry matter intake.**
Reduced rumen fill allows repositioning of abdominal organs. Causes include;
 - Overcrowding during transition period (it is recommended 8-10m² space available per cow or more recently advised; 1.25m²/1000kg milk produced).
 - Cows moving between groups creating stress.
 - Too long in maternity pen (if used), decreasing exercise and DMI.
- **Change in diet.**
Increased concentrates and decreased roughage leads to an increase in gas production, whilst an increase in production of volatile fatty acids also contributes to abomasal hypomotility.

- **Change in position of abdominal organs post calving;**
The uterus suddenly decreases in size (especially after twins) and as the rumen fills the abomasum can become trapped.
- **Hypocalcaemia;**
Milk fever will contribute to hypomotility of the gastrointestinal tract.
- **Concurrent diseases.**
Support suggests a predisposing link with the development of DAs and ketosis, metritis, mastitis, retained fetal membranes, fatty liver disease and endotoxaemia.

Clinical Signs to look out for;

- **Drop in milk yield**
- **Suppressed appetite** (off their concentrates initially)
- Decreased cud chewing
- Depression
- Loose or pasty, scant faeces
- Ketosis
- Decreased rumen contractions
- Black tarry faeces indicating abomasal ulcer

A diagnosis can be made on clinical examination by the vet. Simultaneous percussion and auscultation over the left flank is performed, listening for a characteristic “ping” (created by the gas/ fluid interface).

Treatment; Methods used for the correction and stabilisation of LDAs;

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| • Standing surgical correction – Right flank approach | 90% success rate |
| • Casting and rolling | 20% success rate |
| • Rolling and Toggling (Complications more severe.) | 80% success rate |

The procedure considered suitable will be influenced by a number of factors including; concurrent disease, economics and prognosis of return to production and recovery. Surgical access to other abdominal organs at the same time can help establish a more accurate clinical picture eg; fatty liver, adhesions and peritonitis.

Prevention;

The risk factors should be addressed to prevent this painful and costly condition. An incidence rate higher than 2% in your herd is indicative of a problem which should be investigated by the vet and the nutritionist. If you have any concerns or would like to discuss this further please do not hesitate to contact us at Damory.