

New treatment for LDAs

A relatively new on-farm surgical technique that allows vets to look inside a cow has been shown to aid recovery from LDA surgery quicker and could be used to identify the reason for those occasional mystery sick cows, as *British Dairying* finds out from Somerset vet Sotirios Karvountzis.

Correcting Left Displaced Abomasums (LDAs) via key hole surgery using a lens to look inside the cow has been shown to improve recovery times leading to better yields and low exits from the herd.

Endoscopy involves the use of a magnifying lens which is inserted into the cow through a small incision site. A vet is then able to identify the cause of a problem and if necessary, correct the issue using the lens as a means of guiding the procedure. Alternatively the information gained by seeing exactly what's going on internally could be used to make an informed decision over potential treatment success.

Although the technique can have many surgical applications, vet Sotirios Karvountzis of Shepton Vets, believes it has a particular role to play in identifying and correcting abdominal issues such as LDAs and RDAs (Right Displaced Abomasums).

The abomasum is held in its correct position by the rumen. However if rumen fill is not sufficient or a cow has had twins for example, the abomasum can shift out of its correct position either to the left (LDA) or right (RDA) of the rumen. This most commonly occurs after calving.

"On farm, vets often have to rely on their stethoscope to confirm if a cow has an LDA, for example," Sotirios explains. "However, one in every five LDAs doesn't make the tell-tale ping and slosh sound. If you can look inside using endoscopy, it's definitive as to what the problem is. Now if I suspect a digestive problem I will go in and have a look with this."

Sotirios has been using endoscopy for four years and is one of a handful of vets in the country using the procedure. He has found that in general cows recover quicker and give more milk using this method over



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the toggle technique.

There are three main ways of addressing an LDA, all of which are effective and all involve moving and securing the abomasum back to its correct position. The conventional surgical method involves the use of one long cut, while the toggle method uses two small punctures to insert a toggle to anchor the abomasum. The toggle technique is comparable to endoscopy, however the difference is that vets have to give a "best guess" as to where to puncture.

"There's no way of observing where you are stabbing, so there is a chance you may hit something else, leading to problems. With endoscopy, you have full visualisation of the target

organs thanks to the lens," says Sotirios.

He compared results from using the toggle technique and endoscopy on 80 farms and found that cows operated on using endoscopy gave 5.1 litres more milk up to 120 days compared with cows operated on using the toggle method. Cow exit rates from the herd were no different, but low.

Using endoscopy to correct an LDA while a cow is standing involves a series of spikes and tubes. Two small incisions are made—one on the top left flank which is used as an "observing portal" for the lens and the other between the ribs which is used as a "working portal" for the surgical procedure.



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Sotirios explains how the fact the incision sites are so small aids cow recovery and generally removes the need to use antibiotics after surgery.

"The biggest incision site with endoscopy is 13.5mm, versus about 200 to 300mm with the conventional method. The smaller incision means there is less risk of infection so you don't need to use an antibiotic, unless the specific case warrants it. That means milk can go in the tank straight after the procedure.

"On average, I've found cows operated on using endoscopy recover in half the time as those operated on using the conventional method," says Sotirios.

Endoscopy is also about 30% cheaper than the conventional method and takes half the time. But it takes roughly 15 minutes longer and is about 10% to 20% more expensive than the toggle method.

However, because endoscopy is more accurate, you are less likely to cause other problems. Sotirios also says the added benefit of using endoscopy is the fact you are able to look for other problems at the same time.

"Often an LDA is secondary to something like peritonitis. By having a look first before doing the procedure you can see if there's another problem and whether it's worth persevering and treating," he explains.

Endoscopy could also be useful in identifying the reason for mystery illnesses. "One of my clients had a sick cow that he wasn't sure how to treat. By using endoscopy we were able to see that it had an abscess from ingesting a wire. What we saw gave the owner a clearer idea of treatment success. He then made the decision to send the cow on while she was still clean and fit for travel," says Sotirios.

In this way, endoscopy can be a useful "decision tool" in weighing up the chances of treatment success which could not only save a dairy farmer time and money, but also help animal welfare.

CASE STUDY: Alan Creed, Withial Farm, East Pennard, Somerset

After endoscopy was used to correct an LDA in one of his cows, dairy farmer Alan Creed believes the method is less stressful for both cows and staff and quickly puts the cow on the road to recovery.

LDAs are rare in the herd of 270 Holsteins at Withial Farm. However, when a cow showed signs of gut problems 10 days after she calved last year, he was keen for vet Sotirios Karvountzis to use endoscopy.

"Generally we've had the toggle method used on LDAs but it hasn't worked every time. It's simple but it is a stab in the dark," he says.

"The procedure took longer, but the potential benefits in being a more sure fire method outweighs the time. Cow recovery was similar to a correct toggle procedure, but the toggle procedure doesn't always go right."

Having experienced conventional surgery to

address RDAs, Alan says the recovery from such a full on surgery can take weeks and involve antibiotic treatment and more staff time.

"With endoscopy, the minimal interference with the cow means she's more likely to get better and back to milk quicker. We did use antibiotics on the cow that had endoscopy but it wasn't for long. There is scope to use less antibiotics with this method which means there's potentially less milk withdrawal which is obviously beneficial."

Alan also thinks endoscopy could play a significant role in investigating problems beyond LDAs, such as wires and mystery illnesses.

"In the absence of being able to use X-rays on farm, the concept of a thing you can stick inside a cow to have a look around is quite exciting when in the right hands and it's also fairly non-invasive," he adds.



Alan Creed.

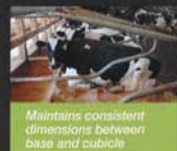
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