The rise and treatment of rumen fluke

IN the UK, an increased incidence of rumen fluke eggs in dung samples, and in the number of cases of acute larval paramphistomosis, has recently been reported.

This increase has been reported predominantly in cattle but also in sheep. It is also currently diagnosed in approximately 30% of sheep and 40% of cattle in Northern Ireland.

STEVE GLANVILL describes the history, diagnosis, treatment and outcome of a case on a large fattening unit served by his practice where rumen fluke was found to be the cause of ill thrift

Clinical signs include anorexia, dehydration, ill thrift, rapid weight loss, listlessness, anaemia and severe watery scour, which may contain blood following a period of prolonged straining.

A large fattening unit near Banbury in Oxfordshire which fattens approximately 3,000-4,000 animals per year, purchasing 10-24 month old store cattle, mostly from the West Country and Wales to graze and fatten, recently reported a problem with their cattle.

In January 2013 the farmer noticed certain groups of housed cattle were not doing as well as they should be, with reduced feed conversion rates, much reduced weight gains, extended periods to slaughter, and in general not looking as good as he would expect.

The farmer weighs cattle regularly to ensure effective weight gain, and these animals were not hitting weight gain targets.

Not all groups or all animals within a group were affected and it was difficult to decide on the exact origin of the affected cattle as they were mixed on the farm, but essentially they were from Wales, Welsh borders and South West (Somerset, Dorset mainly).

All cattle are routinely given a combined closantel and ivermectin injection (Closamectin Injection for Cattle, Norbrook) on arrival at the unit and vaccinated for IBR. This is repeated at housing.

I visited the farm on 21st January to inspect and sample the affected groups. Laboratory results showed a very low worm burden in faecal samples. Pooled faecal samples returned positive for liver fluke eggs, and on serology 4/12 were positive for liver fluke.

Pooled faecal samples and serology results did not point to liver fluke as the problem so further investigation was warranted, and it was decided to follow some animals to a local abattoir to inspect the rumen and reticulum for rumen fluke.

The farmer had heard other fatteners were having similar problems and, when investigated rumen fluke emerged as a cause.

Although most animals were slaughtered at a large abattoir, approximately two animals per week were slaughtered in a local and easily accessible abattoir.

Inspection of the reticulum and rumen of these slaughtered animals showed extensive infestation with rumen fluke. Additionally, the abattoir routinely washes the tripe for sale, and therefore inspections of the tripe reported a similar scene as being a regular finding for the previous 6-8 weeks.

There is no licensed treatment for rumen fluke but oxyclozanide is recognised as the only flukicide effective against both the adult and immature stages of rumen fluke, and I recommended Levafas Diamond (Norbrook), under veterinary prescription, for the treatment of the affected animals.

On 20th February the farmer purchased the product and treated the affected groups. Subsequently, post-treatment faecal samples returned negative for both liver fluke and rumen fluke eggs, indicating successful treatment.

No further rumen fluke infestations have since been found at the abattoir.

Following treatment the affected groups grew on well and further tests during the year proved negative for both liver fluke and rumen fluke.

The conclusion was that the wet summer of 2012 was a big contributing factor to the problem.

The farmer had spoken to other cattle dealers during the winter of 2012/13 who had experienced similar problems, initially reported as poor response to flukicide treatments, but using flukicides which were not effective against rumen fluke.

As in this case, when investigated it was rumen fluke that was found to be the cause of ill thrift, and all animals treated responded very well.

Steve Glanvill, MA, VetMB, DBR, MRCVS, qualified from Cambridge in 1981. He is now a director and runs the farm side of a 20-vet mixed practice, Hook Norton Veterinary Group, in Hook Norton, Oxon. (a member of XL Vets), where he has been since 1983. The client base is very varied with dairy, beef suckler, beef fattening and sheep being equally represented.

Bovine respiratory disease is a multifactorial syndrome involving various bacterial and viral pathogens along with environmental and management factors. The authors examine the relative efficacy of gamithromycin and tulathromycin in treating BRD in feedlot calves. Calves given a single subcutaneous dose of 6mg/kg gamithromycin needed more frequent secondary treatment than those given 2.5mg/kg tulathromycin, also by subcutaneous injection. Other parameters such as the mean case fatality rate, final bodyweight, average daily weight gain and clinical score 10 days post-treatment did not differ between the two groups.

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Genetic analysis of *Mannheimia haemolytica* isolates from fatal BRD cases

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Mannheimia haemolytica is the most common bacterial pathogen isolated from cases of the bovine respiratory disease complex in most developed countries. However, as the bacterium may be present in the upper respiratory tract of healthy animals, it has been suggested that the organism is an opportunistic infection that only causes disease in individuals weakened by other factors. The authors analysed ribosomal DNA from bacteria isolated from fatal BRD cases in the US and Australia. The findings may eventually help in assessing whether the organism is an opportunistic pathogen or in identifying features that distinguish commensal isolates from those more likely to be associated with disease.

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