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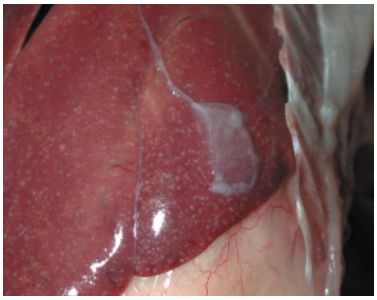

Photograph: VLA – Starcross

FIG 1: Whitish-grey focal lesions in the liver of a free-range layer

TABLE 1: Susceptibility of five avian isolates of *Campylobacter jejuni* to five antimicrobials

Antimicrobial	MIC (µg/ml) Median	Range
Enrofloxacin	0·125	<0·016-1·0
Erythromycin	1·0	0·5-2·0
Furazolidone	0·06	0·03-0·06
Oxytetracycline	1·0	0·125-1·0
Tiamulin	0·5	0·25-2·0

MIC Minimum inhibitory concentration

Avian vibrionic hepatitis in laying hens

SIR, – Further to the letter by Crawshaw and Young (*VR*, November 22, 2003, vol 153, p 664) and the recent report in the Veterinary Laboratories Agency surveillance report (*VR*, October 1, 2005, vol 157, p 402), vibrionic hepatitis (spotty livers) appears to be occurring sporadically in laying hens in the UK, although the condition was reported to have disappeared in the late 1960s. The cause of the condition is not clear, but *Campylobacter jejuni* has been implicated as the aetiological agent. Both reports could not recover *C jejuni* from the liver lesions, although it was found in the intestines in the former case.

The condition is described (Crawshaw and Young 2003, Shane and Stern 2003) as a chronic hepatodegeneration, with swollen livers containing miliary, focal 1 to 2 mm, whitish-grey lesions (Fig 1) with occasional perihepatitis. The disease can cause a drop in egg production of up to 35 per cent, with a morbidity of 10 per cent and a cumulative mortality of 15 per cent (normally 5 to 6 per cent).

Responses to different treatments, in general, have been disappointing; for example, chlortetracycline in feed only mitigated the effects of the disease (Crawshaw and Young 2003). Recently, field reports (S. Young, personal communication) have indicated that tiamulin at 25 mg/kg bodyweight administered in the drinking water for five days is effective in the therapy of this condition.

Presuming the aetiological agent to be *C jejuni*, I. A. Aitken and J. H. Morgan (unpublished data) tested the susceptibility of five avian isolates of *C jejuni* to five antimicrobials (Table 1), using a doubling-dilution broth technique to determine the minimum inhibitory concentration of the antimicrobial.

Tiamulin could be considered active against *C jejuni*, especially as it concentrates in the liver where it is mainly metabolised and excreted. Levels of 93·8 µg equivalents/g of radiolabelled ^{3}H tiamulin (that is, tiamulin and metabolites) were recorded in livers after five days' dosing with 50 mg/kg bodyweight (Committee for Veterinary Medicinal Products 1999).

One further possible cause for the recurrence of the disease might be the withdrawal of furazolidone, which appears to be particularly active against *C jejuni*.

I would be pleased to hear from colleagues who have come across further cases in the field, whether in free-range or caged flocks.

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