Spongiform encephalopathy in a cat

From Ms J. M. Wyatt and others

SIR.—The potential importance of observations made in a routine referral case to the Bristol veterinary school prompts us to report, in brief, our preliminary finding.

A five-year-old neutered, male Siamese cat presented with a history of progressive forelimb and hind limb ataxia over a period of approximately six weeks. Hypermetria of the forelimb gait and postural difficulties were noted. It tended to fall and was unable to regain a normal stance unaided. Episodes of sudden activity occurred for a period of a few days, but behaviour was otherwise normal until late in the clinical course when the cat became quiet and depressed. Appetite was reportedly normal. There was no response to treatment and euthanasia was performed.

There were no macroscopic post mortem changes. Histopa-tological examination revealed a spongiform encephalomyelopathy characterised principally by grey matter neuropil spongiosis, vacuolation of neuronal perikarya and an astrogliotic response. There were no significant changes in liver, kidney, lung or spleen.

This is the first report of a naturally occurring disease in the domestic cat with microscopic changes consistent with the transmissible spongiform encephalopathies due to unconventional viruses. Transmissibility and the pathological neuronal membrane protein, PrP, which further characterise diseases of this group, have yet to be demonstrated in the cat disease. Further investigation of this case is in progress and a full report will be prepared for publication.

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From the Chief Veterinary Officer

SIR.—Your readers will wish to be aware that pathologists at the Bristol veterinary school and the Central Veterinary Laboratory at Weybridge have diagnosed a subacute spongiform encephalopathy in a five-year-old neutered male Siamese cat originating from the Bristol area.

The animal was referred to the Bristol veterinary school by a veterinary surgeon because Weybridge have diagnosed a subacute spongiform encephalopathy in a five-year-old neutered male Siamese cat originating from Stoke on Trent.

Veterinary surgeons in practice will wish to be aware of this finding and to consider the possibility of a spongiform encephalopathy when cats with nervous symptoms are presented for examination.

I would be grateful if all relevant details of any confirmed case could be given to the divisional veterinary officer of the Ministry of Agriculture, Fisheries and Food.

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From Mr P. M. Parry-Smith and others

SIR.—In view of the widely publicised report of spongiform encephalopathy being reported in a cat further investigation will obviously be necessary. It is to be hoped that this condition may have to link with the disease existing in cattle as the consequences of a relationship are potentially devastating.

We feel that few cats which die or are euthanased showing neurological symptoms are subject to thorough post mortem examination and in particular histological examination of brain tissue would normally be rarely carried out.

If the facilities of the Ministry of Agriculture through the Veterinary In-vestigation Service could be made available to examine suspicious cases free of charge, then information would be gained relatively rapidly from all over the British Isles. The ministry and veterinary profession would also be seen to be reacting responsibly and, equally important, rapidly.

Our practice has already answered many questions from owners worried by the news. Great suspicion seems to surround the disease in cattle; if this situation also develops regarding the health of dogs and cats then we will be facing great difficulties in knowing what to tell the general public if we are no more enlightened than they are.

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Incidence of BSE

From Mr K. C. Taylor

SIR.—In News and Reports (VR, May 5, p44) you give a highly misleading interpretation of a Parliamentary written reply about the incidence within herds of bovine spongiform encephalopathy in England, Wales and Scotland.

The figures given relate only to cattle herds in which cases of BSE have been confirmed; they do not show the incidence of BSE in the entire national herd. Thus, among affected herds, 63 per cent (not 69 per cent as you reported) in England, 80-9 per cent in Wales and 88-1 per cent in Scotland have had only one case. Among herds with multiple case histories, 18-9 per cent in England, 11-8 per cent in Wales and 7-9 per cent in Scotland have had two cases, while 18-1 per cent of affected herds in England, 7-3 per cent in Wales and 4-0 per cent in Scotland have experienced three or more cases. About 5-1 per cent of all cattle herds in Great Britain have been affected by BSE.

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Feeding sheep protein

From Mr G. H. Yeoman

SIR.—It is reassuring that the Chief Veterinary Officer feels that he can dismiss the suggestion that the use of sheep protein in pig rations should be banned (VR, May 5, p447). But may I ask, if this question had been put to him in respect of the inclusion of sheep protein in cattle rations in, say, 1985, whether his reply would have been 'Yes' or 'No'? I feel that it would be helpful if the exact grounds on which this opinion is based could be spelt out. There are of course notable differences between pigs and cows, and one of these is the predilection of pigs for biting one another at the trough: parenteral infection would thus seem to be a possibility.

Could we please also be told whether the central nervous system tissue of pigs is being withheld from pig products? My wife and I are too old for it to matter: but having vetoed first beef, and then pork sausages from our grandchildren's camp fire, we are now somehow at a loss . . . can anyone tell me where we can get hold of wartime army sausages?

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The zoonotic transmission of Giardia species

From Dr R. C. A. Thompson and others

SIR.—We read with interest the recent letter by Hay and others (VR, March 17, p274) which reported the distinctiveness of canine and human isolates of Giardia species on the basis of DNA hybridisation analysis. These results complement our findings using DNA analysis as well as isoenzyme electrophoresis and comparative in vitro studies (Meloni and Thompson 1987, Meloni and others 1988, 1989).

However, we are concerned about the interpretation Hay and others have given to their findings.

Hay and others question the validity of classifying giardiasis as a zoonotic infection in the United Kingdom. Such a conclusion cannot be justified on the basis of their data.
Differences in DNA hybridisation patterns between dog and human isolates should not, on their own, be taken to indicate host specificitv. The authors fail to mention that other studies, using DNA hybridisation and isoenzyme electrophoresis (Meloni and others 1988, 1989, Andrews and others 1989, Thompson and others 1990) have found extensive differences between isolates of giardia found in human and dogs so great to warrant different specific designations. The differences found by Hay and others between isolates from dogs and humans may be a reflection of geographical isolation rather than isolation due to occurrence in different species of host. It is not clear if the human isolates referred to by Hay and others were sympatric with their dog isolates. The prefixes suggest that the human isolates may have originated in the USA and not the UK. In addition, if POI is the Portland isolate, then this may be of cat not human origin (Meloni and others 1988, Miller and others 1988).

As emphasised recently by Eckert and others (1989), a meaningful definition of a zoonotic requires evidence of the possibility of transmission to humans from other host species. The fact that no evidence (even preliminary evidence) against zoonotic infection, any more than does the history taking is more involved but there appears to be a scornful shunning of laboratory input, radiography etc. These are not clear if the human isolates referred to by Hay and others were sympatric with their dog isolates. The prefixes suggest that the human isolates may have originated in the USA and not the UK. In addition, if POI is the Portland isolate, then this may be of cat not human origin (Meloni and others 1988, Miller and others 1988).

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References

Sweet-itch research
From Professor P. Lees and others

SIR,—We are currently investigating the role of mediators of inflammation in the pathogenesis of equine allergic conditions. Consequently we are searching for ponies and horses with sweet-itch and chronic obstructive pulmonary disease, either to purchase or have on loan for a few months, in order to provide accommodation at no expense to the owner. All the techniques that will be used in this study are either routine diagnostic procedures or involve simple venepuncture and intravenous administration techniques. If any country in practice has a client who might consider allowing his horse to participate in this project would they please contact Professor Lees, Dr Webbon or Mr Foster by telephone (0707) 554546 or at the address below?

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Letters may be shortened for publication

Postscript

Now you see him, now you don't

IN the last few years veterinary surgeons have been encouraged with every means, by exhortation, threats and pleading, to promote their services to the public using all the ploys of the modern marketing executive. Final year students participate in practice management courses, colleagues set off on lecture tours spreading the public relations gospel, seminars are arranged, books published; all to enable veterinary surgeons to smell of roses, despite any odiferous material they encounter in the course of their duties. The RCVS has relaxed its regulations on advertising to enable the veterinary surgeon to publicise and post in the public in the interests of promoting the profession.

There has also been a recent increase in large illuminated signs outside practices and now perhaps is the time to draw the profession's attention to British Patent application number 2 220 278 which was filed recently by the Nissel Corporation in Tokyo; namely a large projection screen made of water. The mist of water is produced by a row of very fine nozzles pumping water in the air at high pressure and, according to the New Scientist, when a cinema or video projector is focused on the mist, it reflects enough light to create a visible image hanging mysteriously in the air. In the interests of promoting professional standards of animal welfare, revenue might be initiated to enable the deckhand to appear engrossed in weighty matters of administration when they are in fact several miles away frolicking among the fairways or, perhaps, pausing the thought, furiously turning the water supply off at a neighbouring practice.

'TOTALISER'