

# Importance of understanding zoonoses

Diseases contracted from pets, fear aggression in dogs, tick-borne diseases of pets and analgesia in cats were among the topics covered at the 2008 British Small Animal Veterinary Association congress, attended by nearly 7,000 veterinary surgeons and veterinary nurses. Steven Kayne reports

The prevention of zoonoses — diseases contracted from animals — requires an understanding of the biology of the pathogens as well as common sense measures such as hand washing and proper disposal of animal waste, said Alan Radford, of the University of Liverpool Small Animal Teaching Hospital, in an update lecture on zoonotic infections. Prompt diagnosis and treatment of the infected animals are also vital. Dr Radford said that zoonotic infections range from common to rare and involve all the important pathogen groups. Many are mild and have only temporary effects but others can be fatal. Most can be severe in high risk populations such as the old, the young and the immunocompromised.

Briefly reviewing the more important and interesting zoonotic infections, Dr Radford said that the classic small animal zoonosis is probably rabies. Although rare in the UK it remains a common and terrifying disease in other areas of the world with between 40,000 and 70,000 deaths annually, according to World Health Organization statistics.

A new viral zoonosis is avian influenza, which is known to have killed more than 200 people. Less serious viral infections include cowpox virus which has its reservoir in wild rodents but can cause skin lesions in humans and cats.

Turning to bacterial zoonoses, Dr Radford said that undercooked meat (especially poultry), unpasteurised milk and untreated water are associated with intestinal disease caused by campylobacter. Other ex-



More than 200 companies contributed to the exhibition held in association with the BSAVA congress

amples of bacterial zoonoses include *Bordetella bronchiseptica*, which causes kennel cough in dogs. Many cases have been reported of severe infections in immunocompromised people.

Other agents of zoonotic infection include fungi (eg, ringworm), protozoa (toxoplasmosis) and nematodes.

## How to alleviate fear-induced aggression in dogs

The treatment of canine fear aggression was discussed by Gary Landsberg, of North Toronto Animal Clinic, Ontario, Canada, who gave advice on behavioural management and products.

Dr Landsberg told the audience that a dog's response to a stimulus is based on its genetics, socialisation and previous experience. How the stimulus and owner respond might further reinforce or aggravate the situation. Thus if aggression resulted in withdrawal of the stimulus the behaviour has been negatively reinforced. On the other hand if

the stimulus retaliates or becomes worse then the pet fear will be further conditioned.

The fear-inducing situation can be modified by placing more distance between the stimulus and the dog, by changing the nature or intensity of the stimulus, by changing the location of the interaction (eg, in the open rather than in a constrained area) or by separating the stimulus into component parts (eg, a visit to the vet may involve a car journey, time in the waiting room with other animals, time in the surgery, etc) and dealing with each in turn.

Dr Landsberg emphasised the importance of "reading" a dog's temperament before seeking permission from the owner to approach it. This is even more important if no owner is present or the animal is off a leash. Erect ears, staring eyes, yawning, licking of lips or snarling are all signs that the animal may be likely to bite.

For guidance on how to avoid bites from dog, particularly in children, Dr Landsberg recommended the websites The Blue Dog ([www.thebluedog.org](http://www.thebluedog.org)) and Doggonesafe ([www.doggonesafe.com](http://www.doggonesafe.com)).

## The particular problems of pain control in cats

Dealing with feline pain presents particular problems, said Garry Stanway, a vet from Cheshire, in a presentation on chemical restraint and the analgesic approach in cats.

He emphasised that cats demonstrate pain differently from dogs by becoming quiet and withdrawn, and hiding. Further, cats do not express pain, and acquiescence should not be interpreted as comfort. They are also dangerous and hard to control when scared.

Mr Stanway said that analgesics are used less frequently in cats than in dogs because there is a perception that morphine causes a rage reaction in cats, because cats cannot

metabolise non-steroidal anti-inflammatory drugs as well as dogs can and because cats' small size leaves them vulnerable to adverse reactions from local anaesthetics.

Concluding, Mr Stanway said that the measures that can be taken to promote good analgesic practice include the use of preemptive analgesia and the concurrent use of analgesics from different drug groups.

The 51st congress and exhibition of the British Small Animal Veterinary Association congress took place in Birmingham from 3 to 6 April

## Troublesome ticks

Tick-borne diseases of dogs and cats were discussed in a presentation by Janet Foley, of the University of California, Davis, School of Veterinary Medicine. She said that ticks are major pests of dogs and, to a lesser extent, cats. They bite, feed on blood, cause local irritation and transmit several serious diseases.

After piercing the skin with biting mouthparts they cement themselves into the skin and secrete immunoactive chemicals to ensure an influx of inflammatory cells and prevent clotting. Tick bites produce local irritation and can predispose the bitten area to secondary bacterial infection.