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## **Behavioural problems in older animals**



As animals grow older they are likely to present with increased medical problems. Sensory loss (hearing and sight predominantly) and cognitive decline are also responsible for changes in an older pet's behaviour. In fact, in a survey of owners of dogs over 7 years of age, 75% of owners reported at least one sign of brain aging. Only 12 % had reported these signs to a veterinarian.

Early recognition can lead to an early diagnosis and with appropriate treatment the behavioural changes associated with aging can be reduced and sometimes even reversed.

### **Cognitive dysfunction syndrome (CDS)**

This is a condition defined as “the geriatric onset of behaviour problems which cannot be explained by a general medical condition such as cancer or organ failure”. It has been recognised scientifically in dogs, cats and horses (and I'm sure anecdotally in many other species!!)

### **Symptoms**

The main behavioural changes seen in CDS are:

- Disorientation (becoming caught in a corner of the room)
- Reduced social interaction and irritability
- Altered sleeping patterns
- Loss of house-training
- Changes in activity levels and appetite
- Anxiety, depression
- Vocalisation for no apparent reason

**See the handouts: “care for your older cat” and “canine cognitive dysfunction rating scale” for specific ways to check your older pet's behaviour.**

## **Diagnosis**

The diagnosis is usually made by excluding other possible conditions which may be responsible for the changes seen.

Thorough physical and neurological examinations and blood tests to check organ function and thyroid levels are required.

Other reasons for the changes in behaviour can include undiagnosed medical conditions, environmental causes and other behavioural causes, such as the development of separation anxiety or a noise phobia.

## **Causes**

The brain has high fat content which is especially vulnerable to oxidative damage. Its high metabolic activity and poor repair capabilities and natural low levels of protective antioxidants make the nervous tissue prone to free radical attack. This is one potential cause of cognitive decline.

Changes in the brain that have been found in dogs which had signs of CDS include loss of neurons, shrinking of the cortex, plaque deposition in the cortex (the thinking part of the brain) and hippocampus (memory part of the brain) and a reduction in neuromodulators (which help communication between brain cells).

## **Management**

Unfortunately the problem will not go away, but the symptoms can be reduced and the quality of life of your pet enhanced.

Management of CDS involves addressing any physical or behavioural causes that may be exacerbating the symptoms, and usually environment and behaviour modification. For example, a dog who has lost toilet training may be helped with arthritis medication to ease its ability to move, leaving lights on at night and making access to the outdoors easier. Re-training may also be required.

Increasing mental activity in your pet will also help to protect the brain and enhance cognitive function (“use it or lose it”). Please see handouts on environmental enrichment and exercise for more on this.

## **Treatment**

Medications have variable degrees of success. They are:

Selegeline

Nicergoline

Propentofylline

Propranolol

Their functions are to decrease free radical damage to the brain cells, enhance some neurotransmitter and neuromodulator levels, and improve blood supply and thus oxygen to the brain.

If your pet has been prescribed one of these medications, please see your handout on the side effects.

Hills B/D is a diet specifically designed for pets with CDS. It is enriched with antioxidants and other nutrients to help fight the signs of age-related behavioural problems. It can even enhance the learning ability of older dogs. If used, it should be fed as the only diet (no extra food or table scraps). Any diet change should be made gradually (over 7 days). Any behaviour, appetite, health or weight changes should be reported to your vet.

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