## Developments in improving the welfare of dogs with separation anxiety

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#### Introduction

Separation anxiety is a major welfare problem in dogs. This is not simply because the anxiety is a disturbing emotional state for the dog, but also because the associated problem behaviours lead to many pets being euthanased, surrendered, or abandoned. Dogs suffering from separation anxiety often display several "problem behaviours", most frequently excessive vocalisation, inappropriate elimination, and destructive behaviour. Separation anxiety is also a difficult for these dogs, because, when separated from their owners, they suffer from depression and anxiety. Separation anxiety is a common canine behavioural problem because dogs are social animals and attachment is essential for sociability, and, in turn, survival. A dog's natural response to abandonment is to increase its activity and vocalisation (Voith and Borchelt, 1985).

#### **Discussion**

Research on separation anxiety in the last 12 months has concentrated on understanding the behaviours and risk factors, predicting behavioural problems, detecting and treating separation anxiety early and effectively with the right drug in combination with behavioural therapy, and creating an index for its diagnosis.

Takeuchi et al. (2001) analysed several variables in dog behavioural cases (78 cases of separation anxiety). They discovered that only 36.6% had been obedience trained. They also found that a high percentage of the purebred dogs with separation anxiety were sporting breeds. Flannigan and Dodman (2001) also looked at factors predictive of separation anxiety in a case-based study of 200 dogs with separation anxiety. They found that of the 131 purebreds with separation anxiety, the majority were German Shepherds, followed by a significant numbers of Labradors, Golden Retrievers, English Springer Spaniels, and English Cocker Spaniels. Hence, if it is likely that you are going to be frequently leaving your dog alone for long periods of time, these breeds may not be the best choice. Furthermore, obedience training may decrease the incidence of separation anxiety (Takeuchi et al., 2001).

Flannigan and Dodman (2001) also discovered that dogs "found" or "adopted from a shelter" more commonly developed separation anxiety more commonly than dogs that were sourced from a breeder, friend or pet store. Causes of separation anxiety involve early negative experiences (including shelters/abandonment), over-attachment, traumatic experiences that occurred when alone, a change in family or environment, as well as a genetic predisposition (dogs are bred to be socially dependent, devoted and infantile).

Hennessy et al. (2001) did a study on dogs in an animal shelter (also post-adoption) to develop predictors for behavioural problems. They used plasma cortisol levels (stressors will activate the hypothalamic-pituitary-adrenal system elevating plasma cortisol) and a behavioural test as the predictors, which would be useful for screening dogs for adoption and for improving welfare by detecting which dogs need behavioural therapy. The first few days in an animal shelter are regarded as being "stressful" to the dogs, so cortisol levels were tested on days 2 and 9. A four phase behavioural test was performed on day 3. It tested each dog's reactions to being alone, with people, and to various stimuli. Follow-up questionnaires were given to the new owners twice following adoption. Many statistical analyses were performed on all the data collected. It was found that puppies that made contact with threatening stimuli in the test (an approaching, then retreating toy car) had the greatest behavioural problems at home. It was also found that dogs with lower cortisol levels exhibited the most undesirable behaviours later. This correlation parallels findings in human medicine involving lower cortisol levels and behavioural problems in children. This provides the first indication that we may be able to use an endocrine measure in predicting dog behavioural problems including

separation anxiety. However more work needs to be done on this concept, with more dogs and improved follow-up.

Diagnosing separation anxiety can be difficult because the most obvious signs (vocalisation, elimination and destruction) can be seen in several behavioural disorders. This was evident in Flannigan and Dodman's 2001 study of 200 dogs with separation anxiety and 200 with other behavioural problems. They aimed at developing an index to help diagnose separation anxiety that did not rely on these broad behaviours. Instead, the three behaviours used to generate the index were: increased greeting behaviour, departure cue anxiety, and extreme following behaviour. These were scored on a scale of 0-5 (0=absent, 5=severe). Flannigan and Dodman suggest that a diagnosis of separation anxiety is practical for indexes of 10-15, but point out that the index does not discount 'good clinical judgement'. Thus the index is just one means of diagnosing behavioural problems correctly, in order to implement appropriate treatment. Overall et al. (2001) also looked at the need to diagnose behavioural problems correctly in their case based study comparing the presence of separation anxiety and noise and thunderstorm phobias in dogs. The study showed that dogs with separation anxiety were likely to have noise phobia, and dogs with noise or thunderstorm phobias were highly likely to have separation anxiety. This indicates that in order to treat the dogs correctly and improve their welfare by reducing fear and anxiety, it is a good idea to screen for the other two disorders if a dog is presented with one of the three.

For treatment of separation anxiety it is important to use behavioural therapy in conjunction with a drug. Seksel and Lindeman (2001) tested a behavioural regime and the serotonin reuptake inhibitor *Clomipramine* on 24 dogs with separation anxiety. The use of the drug reduced fear allowing for more successful learning in a non-anxious state. Appropriate behavioural therapy involves reducing stressors, desensitisation, counter-conditioning, and obedience training. It is also important only to reward relaxed behaviours. Takeuchi et al (2001) believe treatment outcomes may be better the earlier the dog is presented.

### Conclusion

In conclusion, to improve the welfare of dogs, behavioural problems, including separation anxiety, need to be identified early and diagnosed correctly so as to implement the correct treatment. Treatment of separation anxiety involves adjusting the behavioural flaw and decreasing the dog's fear. Considering that the outcome of treatment is best with early presentation of the animal, a means of predicting problem behaviours would be very useful.

### References

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