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HOME ALONE: Canine Separation Anxiety

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Introduction

Separation anxiety is a distressing behavior problem with serious consequences for the owner as well as the pet. Dogs with this disorder exhibit exaggerated signs of anxiety when they do not have access to family members. It usually happens when the owner is away from home, but may occur when the owner is home but the dog can't get the owner's attention or the pet's access to the owner is blocked. Approximately fourteen per cent of pet dogs seen in veterinary hospitals in the United States are suspected to suffer from separation anxiety (Allpoints Research 1997). There are no notable differences between sexes or breeds of dogs in regard to risk of development of separation anxiety, but studies have indicated that there are significantly more mixed-breeds, dogs adopted from humane societies and dogs over ten years of age that present for this problem (Voith and Borchelt 1985, McCrave et al 1986, Chapman and Voith 1990).

Triggers for Separation Anxiety (Landsberg, et. al., 1997)

- Change in the owner's routine
- Returning to school or work
- Move to a new home
- Visit to a new environment
- A stay in a kennel
- Owner present physically but not paying attention to the dog
- New baby in the home
- New social relationship

Highly social species, such as dogs, exhibit attachment behaviors which serve to maintain social contact and bonds between adult individuals as well as between parent and offspring (McCrave 1991). In situations where an individual loses contact with the group, the resultant anxiety can trigger behaviors that will attract other members (vocalizations), behaviors that help remove barriers (digging, chewing) or ones that facilitate the restoration of contact (increased activity) with other members. It is this underlying drive to be with members of the established social group that provides the foundation for hyper-attachment problems to develop.

The underlying issue involves hyper-attachment to one or more family members. The onset of problems often coincides with changes in the amount of time that the owner spends with the pet. A new social relationship, working late, or returning to work after an extended stay at home are all examples of changes in the owner's life that can be upsetting for the pet. Environmental stress such as a move to a new home or a traumatic event might also contribute to a separation anxiety problem. In some older pets, the problem may gradually develop on its own without any major environmental changes. Although the exact etiology of these types of changes in senior and geriatric dogs is unknown, changes in the physiology of the aging canine brain may serve to facilitate the development of separation anxiety.

Some owners are convinced that the destructive behaviors are purposefully directed toward them because the pet is "mad" about being left alone or confined. Part of this reasoning is due to the fact that the objects that are commonly damaged include personal items belonging to the owner, such as books, clothing, shoes and sofa cushions. What these objects have in common is that they are frequently handled by the owner and carry the owner's scent. Contact with these items may serve to remind the pet of the absent owner, which causes anxiety that triggers destructive displacement behaviors.

Treatment for separation anxiety involves developing independence for the dog by adjusting the relationship with the owner and promoting calmness when the owner is gone. This is done by managing

the environment, teaching the owner alternate ways of interacting with the pet, using behavior modification, and, for severe cases, prescribing medication.

Diagnosing Separation Anxiety

The diagnosis involves collecting historical information about the pet that reveals hyper-attachment to the owner, anxiety at the time of the owner's departure and owner-absent behavior problems for which other medical and behavioral causes have been ruled out.

The medical workup

An important initial step is the medical work up. Each pet should receive a thorough physical exam. Depending upon the specific behaviors the individual is exhibiting and the physical exam findings, a full neurologic exam, chemistry panel, CBC, thyroid evaluation, fecal exam and/or urinalysis may need to be performed.

Hyper-attachment

The typical home situation in which separation anxiety problem develops is one in which the relationship between the pet and the owner is extremely close. When the owner is home, the pet may continuously keep the owner within eyesight or may constantly stay at the owner's side. A prime candidate for this type of problem is the dog with a slightly anxious temperament that successfully solicits attention from the owner whenever it wants, and is very sensitive to environmental changes.

Predeparture anxiety

As the owner prepares to leave, the pet usually shows salient signs of anxiety including increased activity (restlessness, pacing, whining), depression (withdraws, reluctant to move, "downcast" look, refuses to take treats) or physiologic changes (panting, tachycardia, hypersalivation, vomiting). These occur in response to recognizable departure cues, such as picking up car keys, putting on a coat, picking up a brief case, etc.

Owner-absent problems

During the owner's absence, the dog may exhibit a wide range of behaviors including chewing, scratching, housesoiling and vocalizing. The targets of the destructive behavior are usually areas around windows or doorways where the owner leaves the home, or items that bear the owner's odor. The problems may occur every time the owner leaves or only after specific absences. For example, the pet may be fine when the owner leaves for work each day, but becomes distressed and destructive during absences of the owner in the evening.

Greeting behaviors

When the owner returns, the dog usually exhibits exaggerated greeting behaviors.

Common Features Of Separation Anxiety

- The pet is hyper-attached to the owner
- The pet shows signs of anxiety as the owner leaves
- The problem behaviors usually only occur when the owners are absent or when the pets can't gain access to the owners when they are at home
- The anxious behaviors begin very shortly after the owner leaves and may occur even during very short absences by the owner
- The pet shows exaggerated greeting behaviors

RULING OUT OTHER BEHAVIOR PROBLEMS

Destructive Behavior

There are a variety of reasons why a dog might exhibit destructive behaviors. If the destructive behavior is usually directed toward doors and nearby windows where the owner exits, it is likely that the pet is suffering from separation anxiety. Other targets for destructive behavior include personal

possessions of the owners or things they contact, such as hair brushes, books, clothes, and furniture. The dog will target those items because they carry the owner's scent, not because the dog is "getting back at that person" for being left alone, as some owners might suspect. Much of the destructive behavior begins within the first thirty to sixty minutes following the owner's departure. This a time when the pet's anxiety and arousal level is the highest.

Other causes of destructive behaviors in the owner's absence include teething, play, investigative behavior, hunger, nesting (during pseudocyesis), noise phobias, barrier frustration, and inadequate exercise or stimulation. Some pets will scratch and dig at walls and flooring when they hear mice scurrying about.

Another explanation for intermittent destructive chewing around windows and doors is territorial behavior. Displaced chewing or destructive escape behaviors can be triggered when the pet sees another dog or a person outdoors.

Vocalizations

Vocalizations associated with separation anxiety may include crying, whining, yipes, howls and barking. These usually begin as the owner is leaving home. Excessive anxious vocalizing may also occur if the owner is home and the pet's access to the owner is blocked.

Other causes of excessive vocalization that should be ruled out include physical discomfort, alarm barking, predatory response to prey animals seen through the window, compulsive disorder, territorial aggression, social response to hearing other dogs, cognitive dysfunction, and other anxiety-related disorders.

Housoiling

Pets with separation anxiety will usually eliminate in the home every time the owner leaves. They will do this shortly after the owner leaves, even if they have just eliminated outdoors prior to the owner's departure. Some may even eliminate while the owner is in the act of departing. Unless the pet is also housoiling due to a concurrent training problem, elimination in the home is unusual when the owner is present. An exception to this may occur when the owner is physically present, but mentally absent. This may happen when the owner is ignoring the pet and paying attention to a new baby or social partner.

Other causes of housoiling when the owner is gone include training problems, schedule changes, diet changes, excessive confinement periods, gastrointestinal disease, lower urinary tract disorders, incontinence, medical problems that cause polyuria or diarrhea, medications that increase the volume or frequency of elimination, urine marking, and cognitive dysfunction.

The most common cause of housoiling is inadequate training. In most cases, these pets also housoil when the owner is at home. Problems involving diet changes, disease processes or medication should be discovered during the medical workup. Information about where the pet eliminates, as well as the pet's temperament, sexual status and reactivity may provide clues regarding marking problems.

Miscellaneous Problems

In addition to excessive destructive behaviors, vocalizations and inappropriate elimination, dogs with separation anxiety may also show signs of hypersalivation, emesis, diarrhea, and self-mutilation, withdrawal, anorexia, depression, and lethargy. Many of these signs can be caused by a variety of diseases. Therefore, a complete medical work up is extremely important.

PROGNOSIS

The outlook is good if the duration of the time since the problem began is short, the pet doesn't exhibit significant signs of anxiety in a variety of other of situations, the owners can be motivated to perform time-consuming exercises as well as change the way in which they interact with the pet, and, in severe cases, the owners are willing to use psychoactive medication.

TREATMENT

The successful management of separation anxiety includes teaching the dog to tolerate owner absences and correcting the specific problems of chewing, scratching, digging, barking, or elimination.

- Environmental Considerations
- Adding another pet
 - In rare situations, providing another pet will provide a playmate or distraction for the dog. It doesn't necessarily have to be another canine. Turtles, ferrets or cats might provide companionship or stimulation. But this will not always help since most dogs miss their owners in particular, and adding another pet is no substitute for the human companionship for which they yearn.
- Confinement
 - Confining the pet to a crate or small room in the home will immediately stop destructive behavior and housesoiling throughout the home, but is usually not well tolerated by pets with little experience with confinement. Sudden confinement may actually add to the anxiety that the pet experiences during the owner's absence. Some pets become so determined to escape the confinement area that they cause major damage and even serious injuries to themselves. Ideally, the pet should be gradually introduced to the confinement area by using treats and toys. Placing the crate near a patio window so the pet can see outdoors may help in some cases. In other cases, exercise pens or home-built indoor runs may be better tolerated. There may not be enough time for the frustrated owner to do confinement training properly. When this is the case, day boarding, hiring a pet sitter or using anxiolytic medication may initially be necessary.
- Distractions
 - It may be helpful to provide certain types of chew toys and activities to keep the pet occupied during the high anxiety period immediately following the owner's departure. The best toys are those that are highly stimulating and keep the pet's attention. Although many dogs will not chew their regular toys or eat when anxious or stressed, new chew toys, or food-type chew toys (e.g. pig's ears, rawhide dipped in bouillon, cow femurs stuffed with shrimp) may be attractive. Tasty food treats, such as meat or cheese should be hidden inside toys, in packages that the dog must open, or hidden under bowls or boxes around the home in order to keep the pet busy. Reserving the dog's access to special treats to times when the owner is absent may actually teach the dog to look forward to the owner leaving.
- Leaving a radio or television on may help mask environmental noises that might make the pet anxious and trigger barking or destructive behaviors.
- Destructive behavior
- Environmental measures have varying degrees of success depending upon the individual dog's temperament. Applying aversive-tasting substances, like ChewGuard or Bitter Apple, may help curb chewing. Removing or blocking access to chewed items may be protective. A low volume motion alarm may help keep the pet away from an area. A basket muzzle (for safety, the pet must be able to open its mouth) may help immediately control destructive chewing, but should only be used if the pet can be taught to wear it without increasing its anxiety.
- Housesoiling
 - Clean up elimination odors and place food bowls and toys over previously soiled areas to discourage resoiling. Confine the pet to a relatively small area. Avoid feeding large meals prior to confinement. Providing a bowl of frozen water will prevent the pet from drinking large amounts at one time, and force it to sip throughout the day. For some cases, providing a doggie door may be helpful.
- Vocalization
 - Shock collars or any strongly aversive techniques should be avoided. Playing a radio at a volume that masks environmental noises or confining the pet to an area of the home where it cannot hear outside noises may be helpful. A citronella anti-bark spray collar (**Gentle Spray™ Citronella Anti-Bark Collar**) may be beneficial and appropriate for some pets. It should be used for the first time when the owner is at home to insure that it does not contribute to the pet's anxiety.

- Behavior Modification
 - Changing the relationship with the owner
 - The owner should avoid giving the pet attention on demand. When the pet gets what it wants every time it nudges or whines, it is more likely to be anxious when it is alone and can't get social attention. The owners should know that they can give the pet the attention they desire, but it must always be on their terms, not the pet's. Strategies that involve having the owner completely ignore the pet at all times may be counterproductive and are not humane.
- Departures - habituation to predeparture cues
 - Most dogs with separation anxiety have learned to associate specific cues with the owner's departure. The presence of these departure cues will typically create anxiety about an impending absence of the owner. Until the pet has been habituated to these cues, they should be avoided whenever possible during actual departures. Putting jacket and boots on in a room away from the pet, leaving a briefcase, purse or keys in the garage and leaving through a different door while the dog is otherwise occupied or distracted can greatly help reduce departure anxiety. Departures should be kept as calm as possible.
 - To reduce the pet's anxiety at the owner's departure, the dog should be habituated to departure cues. This can be done by repeatedly picking up the car keys, opening the door, putting on a coat or picking up a briefcase, etc, so that these cues lose their strength in eliciting anxiety.
- Greetings
 - Homecomings should be kept very low key and the pet should be ignored until it is calm. When the greeting with the owner is the high point of the pet's day and the owner is late in arriving, the pet is likely to become distressed and engage in unacceptable separation behaviors.
- Obedience
 - The pet must learn to respond to "sit", "down", and "stay" commands so the owner can begin teaching it to tolerate being alone.
 - **Teach the pet to be alone - Phase I**
 - The owner should introduce the pet to the idea that it cannot always be with family members by frequently requesting it to do down-stays and sit-stays. This phase should begin with the pet responding to a stay command for a very short period (one - two seconds) before accompanying the owner to various rooms throughout the home. Gradually, the pet should be required to stay for longer periods of time, until it will remain in another room for 30 minutes or more. If the dog is confined to a particular room or area during normal departures, this is the area where a majority of the training should take place.
 - **Teach the pet to be alone - Phase II**
 - After the pet has been habituated to the departure cues, the owner should practice short mock departures. Prior to leaving, the pet should be ignored for 15 minutes. The owner should quietly leave for a very short period of only a few seconds to a few minutes. The duration should be shorter than the time in which it takes the pet to show signs of anxiety. Periods can be lengthened gradually when the dog repeatedly responds without anxiety. The duration of the departures should be lengthened on a variable schedule, so that the pet cannot predict exactly how long the owner will be absent.
- Exercise
 - Frequent exercise sessions have a calming effect, decrease anxiety and provide suitable social interaction. Providing vigorous, aerobic exercise two to three times daily can have a very positive effect in many cases.
- Punishment

- Punishment by the owner increases anxiety and it plays no appropriate role in the successful management of separation anxiety. Unfortunately, it is the most commonly employed tool by the owner in an attempt to correct separation-related behavior problems. This approach is fraught with problems. First, since the behavior problem occurs when the owner is absent, punishment cannot be temporally associated with the behaviors and, therefore, the animal cannot learn from it. Second, punishment by the owner often causes conflict and more anxiety. Consider the dog that becomes very anxious and chews on the door because of the owner's absence. All this poor creature thinks about during the owner's absence is resuming contact. When this finally occurs, what happens? The owner scolds and possibly beats the dog. The causes even more stress, and the anxiety-related problems increase. At the worst, other problems can develop such as avoidance and fear aggression.
- Pheromones - *A new treatment choice*
- Medication
 - Pharmacologic intervention can be a very important treatment adjunct for dogs with severe problems. For situations when a frustrated owner can no longer tolerate the pet's behavior, it may be life saving. Pretreatment physical exams and lab evaluations are important since most psychoactive medications require normal hepatic and renal function to assure proper metabolism.
 - TRICYCLIC ANTIDEPRESSANTS
 - Tricyclic antidepressants such as clomipramine and amitriptyline can be very helpful for treating pets with separation anxiety by providing relief from anxiety as behavior modification begins. Clomipramine (CLOMICALM™, Novartis) is the only medication specifically labeled for treating canine separation anxiety.
 - Mode of action:
 - Enhances serotonin activity by blocking serotonin reuptake at presynaptic receptor sites.
 - Peripheral and central anticholinergic action
 - Variable degree of antihistaminic activity
 - Mildly sedating
 - Caution:
 - Side effects may include vomiting(20%), lethargy(14%), diarrhea(9%), increased thirst(3%), decreased activity(3%), aggression(2%), seizures(1%) (Novartis 1998)
 - Do not use concurrently with monoamine oxidase inhibitors (e.g. amitraz, selegiline, Deprenyl®), selective serotonin reuptake inhibitors (e.g. fluoxetine),
 - Avoid using in male breeding dogs
 - May cause cardiac arrhythmias including tachycardia and syncope
 - Use cautiously with anticholinergic, sympathomimetics other CNS-active drugs including general anesthetics and neuroleptics
 - Safety unknown in breeding dogs and in dogs under 6 months
 - Must have normal hepatic and renal function
 - Use with caution in aggressive dogs
 - Avoid using in dogs with a history of seizures or on medications that lower the seizure threshold,
 - Use with caution in dogs with increased intraocular pressure, narrow angle glaucoma, urinary retention , reduced gastrointestinal motility due to anticholinergic activity
 - May interfere with thyroid replacement medications
 - CLOMIPRAMINE: CLOMICALM™ (Novartis)

- Labeled for separation anxiety in dogs
- AMITRIPTYLINE
- BENZODIAZEPINES
 - Benzodiazepines may also be useful. For pets who experience a major panic attack as the owner leaves, alprazolam or clorazepate can be given one to two hours prior to departures. Caution must be taken when using combinations of psychoactive medication. In healthy dogs, I have successfully used low doses of benzodiazepines in combination with tricyclic antidepressants.
 - Mode of Action:
 - Acts on limbic system and reticular formation
 - Potentiates GABA, an inhibitory neurotransmitter
 - Caution:
 - Long term use may produce habituation
 - May be withdrawal signs
 - May cause hyperphagia, ataxia
 - May release inhibitions in fear aggression and disinhibit attack behavior.
 - May interfere with learning
 - Contraindicated: Impaired liver function
- ALPRAZOLAM
- CLORAZEPATE
- SELEGILINE HYDROCHLORIDE
 - Selegiline hydrochloride is a monoamine oxidase B inhibitor and may help some cases. It should be considered for use in older pets that may also be showing signs of cognitive dysfunction (confusion, disorientation, changes in sleep-wake cycle, inappropriate vocalization loss of learned behaviors, alterations in social interaction with the family).
 - Mode of action:
 - MAOB inhibitor
 - Caution:
 - Avoid concurrent treatment with other MAOIs (eg. amitraz) , selective serotonin reuptake inhibitors (eg. fluoxetine), tricyclic antidepressants (e.g. amitriptyline, clomipramine), phenylpropanolamine and ephedrine.
- ANIPRYL® (Pfizer Animal Health)
- PHENOTHIAZINES, PHENOBARBITAL
 - These drugs may provide some sedation and decreased activity, but are generally not effective choices for separation anxiety. The dosage required to completely stop undesirable behaviors by severely affected dogs usually will cause excessive sedation.

PREVENTION

When counseling the owner about a current separation anxiety problem, some time should always be spent discussing similar situations in the future that might trigger a recurrence and how to best avoid problems.

When the owner anticipates a significant alteration in schedule or in the amount of time spent with the dog, the changeover should be made as slow as possible. Changes should be made very gradually in a way that can easily be tolerated by the pet. Medication might be considered as a preventative, but should be started at least four weeks prior to major changes. A little forethought will help prevent the anxiety that can develop in association with sudden, major changes in the pet's life.

REFERENCES

- Allpoints Research. Pet owner survey, Feb.1997.
- Chapman BL, Voith VL. (1990) Behavioral problems in old dogs: 26 cases (1984-1987). J Am Vet Med Assoc 1990;196:944-946
- Landsberg GL, Hunthausen WL, Ackerman L. (1997). Handbook of Canine and Feline Behaviour, Butterworth-Heinemann. Oxford, England
- McCrave EA. (1991) Diagnostic criteria for separation anxiety in the dog. Vet Clin North Am (Sm Anim Pract) 1991;21:247-255
- McCrave EA, Lung N, Voith VL. (1986) Correlates of separation anxiety in the dog. In Abstracts of the Delta Society International Conference, Boston
- Novartis (1998) From CLOMICALM™ Clinical and Technical Review, Novartis Animal Health, Greensboro, NC
- Voith VL, Borchelt PL. (1985) Separation anxiety in dogs. Compend Contin Educ Pract Vet 1985;7:42-53