SEPARATION ANXIETY – HOME ALONE

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Separation anxiety is perhaps one of the most common behavioral problems of dogs and it has been documented in cats.[1] Approximately 20% of dogs in the United States suffer from some form of separation anxiety or distress.[2] Its presentation is damaging to the human-animal bond and may result in relinquishment and/or euthanasia. Problem duration may be negatively associated with outcome, therefore it is important to screen for behavioral signs and symptoms during routine veterinary wellness visits. Clients may not always be forthcoming with information regarding their pet's behavior. Early identification and intervention may truly mean the difference between life and death. While addressing behavioral concerns in private practice can be time consuming, preserving the bond and keeping patients in the home can be a significant income generator. Most cases of separation anxiety can be addressed with regard to treatment recommendations within only 30 minutes of doctor-client-patient time. Ideally, medical history, preliminary behavioral history and blood testing is done prior to the behavior appointment to allow for honing in the diagnosis and specific treatment recommendations.

Signalment, Predisposition, and Risk Factors

Canine cases may be biased toward male dogs which represent 60-70 percent of the patients in most studies.[3] Approximately 50 percent of patients are mixed breed and they may be considered at increased risk verses purebred dogs.[3] Mixed breeds may reflect where the dogs are most often sourced. Dogs from shelters or rescue may be at increased risk and they may be more resistant to improvement with behavioral therapy.[4] Often dogs with separation anxiety were at one point relinquished or had more than one owner. It is easy to understand how attachment to a person and relinquishment/rehoming can influence separation distress. Generally risk may be directly correlated with the number of homes the dog has lived in and the number of times the dog has been relinquished/rehomed. In one study, dogs in single adult human households were 2.5 times more likely to have separation anxiety when compared to dogs from multi-human households.[5] Intact dogs were a third as likely as neutered dogs to have separation anxiety. Dogs that frequently solicit human attention and display exuberant greetings are more likely to have separation anxiety.

Feline cases were biased towards neutered males in one study.[6] Neutered males were 1.6 times more likely to have separation anxiety syndrome when compared to female cats (intact or fixed) with other behavior problems.[6] Neutered female cats were significantly more likely to display inappropriate defecation and psychogenic grooming as a sign of separation anxiety when compared to neutered male cats.[6] Neutered male cats are significantly more likely to display destructiveness verses none of the neutered female cats.[6] Cats may be at increased risk of separation anxiety if they are neutered, exclusively indoor cats (75% in one study), live in a single adult household, and were adopted from a shelter after 3 months of age.[6] Solitary neutered female cats were concluded to be at a higher risk than solitary neutered males.[6]

Causes

Dogs removed from the litter at an early age are more likely to from strong social attachments with humans than with other dogs. Similarly, kittens that were orphaned, bottle raised and early weaned

may form strong attachments toward humans. Puppies and kittens who were never left home alone from people, or alone from other pets, may have never learned independence.[7] Fearful puppies are more likely to be dependent on their caretakers, as are puppies that experienced early illness.[8] The same is thought to be true of kittens. Problems may be directly related to a lack of appropriate social and environmental experiences during the socialization period. Changes in ownership, moving or leaving the pet in an unfamiliar environment, a change in occupants to the home, and changes is the owner's work schedule may all influence separation anxiety/distress in dogs and cats. Dogs who are afraid of storms and taught to find their owner for comfort often panic when it storms and they are home alone. Likely these dogs are more distressed when they cannot find their owner because they are home alone.

Clinical Signs

Separation anxiety is best defined as a panic attack that occurs during the attachment figures absence. Distress may occur with an actual absence (owner away from home/pet while at work) or virtual absence (pet confined in the home and blocked away from physical contact with the owner). The latter may be referred to as barrier frustration with is likely a subset of separation anxiety. These pets do not do well confined in a crate, exercise pen, behind a barrier, or when separated by a barrier and in the physical presence (visual or auditory) of the owner.

Clinical signs of separation anxiety often occur in less than 10 minutes of separation from the dog's attachment figure.[9] The attachment figure may be a favorite person, such that when that one person leaves the pet, no other person in the home provides comfort or lessens the animals anxiety. In other situations, the pet needs only a warm body at home, either a person, dog or cat, to prevent signs of anxiety. Some dogs will be fine when left home alone during routine hours, but display anxiety when left alone for spontaneous owner departures. For other dogs the opposite is true. Leaving the pet shortly after a long absence may trigger anxiety. Traveling or being away from the pet for extended periods of time often trigger anxiety. Some pets do fine when left in familiar locations, but can't handle being left alone in unfamiliar locations and vice versa.

Some dogs display hyperattachment or codependence with the attachment figure.[5]Cats may also display hyperattachment toward a specific person. These pets often follow the person from room to room, vocalize or open doors such as when the person goes to the restroom, and solicit attention from the person on a regular basis. The pets may be considered "needy," clingy" or "velcro." Attention getting behaviors such as meowing/barking, pawing, scratching, rubbing or leaning against, and staring at their person often get reinforced with owner interaction. Some dogs will steal articles of clothing or remove items from the table in an attempt to get attention. Some cats will climb on their owners and place themselves persistently in the owners lap or in front of the owners computer, thereby preventing work. In essence, these pets are working for attention all day long while their owner is home, and it is often reinforced with some form of attention directed toward the pet. What's the pet to do in the owner's absence when he/she is not getting attention?

Signs in dogs may include destructive behavior, excessive vocalization, inappropriate elimination, hyperactivity or depressed activity, hypersalivation, excessive panting, self-injurious behavior, escape behavior, and rarely aggression.[10,11] Destructive behavior often occurs to personal items, at entrances and exits to the home, and near windows. Vocalization often consists of high pitched whining, barking or howling in order to be communicated as a distance decreasing signal. Previously house trained dogs may void urine, defecate, or urine mark when alone. Panting, pacing and drooling often occur although some patents are sedentary and appear depressed. Self-injury may occur with excessive grooming or chewing or scratching in an attempt to escape the property or confinement. In rare cases, aggression may directed to the attachment figure as they attempt to exit the home.

The most common sign in cats is inappropriate elimination, with 75% of cases urinating on the owner's bed in one study.[6] Other signs in order of their prevalence include excessive vocalization,

destructiveness, and self-mutilation in the form of excessive grooming.[6] Likely some cats will show behavioral inhibition and hide, while others show increased ambulatory behavior.

Behavioral Diagnoses and Differentials

A behavioral diagnosis is based on the history, presenting clinical signs, video/audio recording and/or visual/auditory observation of the behavior. A diagnosis should identify the displayed clinical signs, the context in which they occur, and the presence or absence of hyperattachment and/or barrier frustration.

For most pets anxiety builds as the attachment figure prepares to depart the home and it peaks within the first 20 minutes. Most clinical signs will occur within less than 20 minutes of the attachment figures absence. However, in some cases there are delayed triggers which elicit panic such as the sound of a person entering the apartment above, or a passing storm. This being said, in cases without delayed triggers of panic, if the pet can be left home alone without anxiety for 1-2 hours, the pet can usually be left home alone for extended periods of time.

Diagnoses and differentials for separation anxiety include generalized anxiety, fears and phobias, territorial or redirected aggression, conditioned attention getting behaviors, causes of inappropriate elimination such as a lack of housetraining or marking, adolescent or normal destructive behaviors, cognitive dysfunction and compulsive disorders. Anxiety may not only be associated with owner departure but may also occur in the owner's presence absent of identifiable triggers or due to numerous triggers that are unavoidable. Dogs may be destructive at doors and windows sills with redirected territorial aggression. Pets may be fine home alone in the absence of specific events, but a loud noise or passing storm may trigger a panic attack. A common comorbid condition in dogs with separation anxiety is thunderstorm or noise phobia.[12] The probability that a dog will have separation anxiety, given that the dog has noise phobia is 88 percent, and 86 percent for storm phobia.[13] The probability that a dog will have noise phobia or storm phobia, given that the dog has separation anxiety is 63 percent and 52 percent respectively.[13]

Taking a Behavioral History

Taking a behavioral history is all about asking the right questions and ruling in or out other behavioral/medical factors. Some pertaining behavioral questions should include: What is the behavior (signs displayed or evidence thereof in the individual patient)? When does the behavior occur (time of day)? In what context or situation does it occur (actual vs virtual departure)? What is the number per weekday/weekend and the duration of absence(s)? Who is the attachment figure? What is the pet's behavior prior to departing, during departure, in the attachment figures absence, and upon the attachment figure returning home? How does the pet behave in the owner's presence (when they walk about the home, close a door to exclude the pet, or go to check the mail, etc.)? How does the owner react when the pet solicits attention? How does the pet solicit attention and how often does it occur? Has the pet ever been house broken or litter box trained and if so, how was the dog trained? How does the pet react to sounds, noises, and when in familiar and unfamiliar environments? How does the pet behave when it sees people, dogs, or other animals from the property? How does the pet behave when unfamiliar people enter the front door or visit the home? Does the pet show any repetitive behaviors and if so when do they occur? If the canine or feline patient is greater than 7 to 10 years of age, respectively, they should be screened for clinical signs of cognitive dysfunction syndrome (DISHA/A).

Behavior and Environmental Modification

Triggers of anxiety should be avoided if possible. For most pets, one long departure is better than several short or spontaneous departures. Owners should realize that every departure is a trigger of separation anxiety. If daycare is used or the dog is occasionally taken with the attachment figure, a cue (harness or dragging leash) is given to tell the dog it will go with the person about 20 minutes prior to the departure. When learned, this cue prevents the dog from anticipating, "when the owner goes, so do I."

Management of the pet home alone should consider safety and minimize the pet's anxiety level, while minimizing factors that are damaging to the bond. May pets do better if not confined. If confinement is considered, a larger area is preferred. If a crate is used for dogs, it must be escape proof to prevent escape conditioning. Zip ties may be effective for some dogs, but for others, heavy aluminum crates which are unable to be bent may minimize the risk of dental trauma or injury.

Arrivals and departures to and from the pet should be nonchalant. Calm behavior should be rewarded and excitability/anxiety ignored. The pet should be offered a food storage toy or enrichment devices about 10 minutes prior to impending departure. Timing of offering decreases the likelihood of the toy or enrichment device from becoming a departure cue. In addition, the toy or enrichment devices should be offered to the pet at other times when the owner is not departing the home. Upon the owners returning home, the pet should be ignored until it settles down.

If the pet displays hyperattachment, then attention demanding behavior should be ignored and only offered under the owner's terms (not when the dog/cat demands it). This helps to prevent conditioning of unwanted or undesirable attention getting behaviors. It also helps to foster independence and make the environment of the owner home more similar to the owner away. Interactions may be structured into the format of a cue, response and reward to teach the patient alternate appropriate attention getting behaviors.

Pets should be desensitized or habituated to departure cues. Cues of impending departure (ie. car keys, cell phone, shoes, jackets, etc.) should be avoided when the owner has to leave the home (in the presence of the pet). The cues should be done several times a day (in the presence of the pet) when the owner does not depart. This functions by minimizing the predictive value of the pre-departure cues. Cues should not be performed at a level that produces anxiety, but rather at a graduated level that uses desensitization.

The patient's mental and physical needs should be met, consisting or routine meals for dogs, ad lib feeding utilizing puzzle feeders for cats, social interaction in the form of walks off the property (for dogs) or daily play sessions, and mental stimulation in the form of positive training. Positive reinforcement training is often recommended for working on independence. A go to place cue is used for dogs and cats. Teaching the pet to go away from the owner and stay is advised in order to foster independence.

Pharmacological Therapy

Mainstay medications

Mainstay medications commonly used would be a selective serotonin reuptake inhibitor (SSRI) or tricyclic antidepressant (TCA). Only two have been veterinary approved for separation anxiety in dogs, Reconcile (fluoxetine) and Clomicalm (clomipramine). None are approved for use in cats and all other medications are extra label in dogs. Onset of action is often delayed and it may take 4-6 weeks for effect.

Selective Serotonin Reuptake Inhibitors generally produce fewer undesirable side effects because they are serotonin selective. They are often dosed once a day for dogs and cats. Temporary reduction in appetite may occur in the first 1-2 weeks of use. Side effects seen more frequently with medication like fluoxetine include nausea, nervousness, and restlessness. Paroxetine has mild anticholinergic side effects; use should be avoided in patients with existing conditions that may be aggravated by anticholinergic effects.

Dogs: Fluoxetine 1-2 mg/kg PO q 24 hours Cats: Fluoxetine 0.5-1 mg/kg PO q 24 hours

Paroxetine 1-2 mg/kg PO q 24 hours Paroxetine 0.5-1 mg/kg PO q 24 hours

Tricyclic Antidepressants should always be dosed twice a day in dogs, as the half-life is about 4-6 hours. For cats, they are commonly dosed once a day. It may take 4-6 weeks duration in order to evaluate the effect. Side effects may include sedation, vomiting, increased thirst, dry eye, increased intraocular pressure, mydriasis, urinary retention, constipation, and lowered seizure threshold. Caution should be used in patients with arrhythmias or cardiomyopathies.

Dogs: Clomipramine 2-4 mg/kg PO q 12 hours Cats: Clomipramine 0.3-0.5 mg/kg PO q 24 hours

Amitriptyline 2-4 mg/kg PO q 12 hours Amitriptyline 0.5-1 mg/kg PO q 24 hours

Anticonvulsant(s) such as gabapentin are considered in patients with anxiety and existing epilepsy/seizures. Gabapentin has good anti-anxiety effects and pain relieving properties. Side effects are rarely seen and may include increase appetite. Gabapentin may be used as a mainstay medication or as an adjunct to an SSRI or TCA.

Dogs: Gabapentin: 10-30 mg/kg PO q 8-12 hours Cats: Gabapentin: 12.5 mg/cat PO q 12 hours

Monoamine Oxidase Inhibitor such as selegiline (Anipryl) is approved for use in dogs with cognitive dysfunction syndrome. It is used in extra label fashion for cats suffering from cognitive dysfunction.

Dogs or Cats: Selegiline 0.5-1 mg/kg PO q 24 hours (given in the morning)

Adjunct medications

Adjunct medications are used in conjunction with an SSRI or TCA. All are extra label use in dogs and cats. Ideally they are dosed 1-2 hours prior to situational anxiety (i.e. Owner departure). They generally have a rapid onset of action and may work synergistically with mainstay medications.

Benzodiazepines have a rapid onset of action with most showing an effect in 1-2 hours. For separation anxiety, they should be dosed 1-2 hours prior to owner departure. Side effects may include increased appetite, muscle relaxation, ataxia, inhibited learning, and disinhibited aggression. In rare cases, paradoxical side effects occur.

Dogs: Alprazolam: 0.01-0.1 mg/kg PO PRN or q 4 -6 hours

Cats: Lorazepam: 0.1-0.2 mg/kg PO q 12 hours

Alpha 2 Agonist: Clonidine is an alpha 2 agonist similar to other alpha 2 agonists such as xylazine or medetomidine/dexmedetomidine. Few side effects are seen, possible sedation, and the medication is less likely to disinhibit aggression.

Dogs: Clonidine: 0.01-0.05 mg/kg PO PRN or up to every 12 hours

Serotonin Modulators: Serotonin Modulators may be added to SSRIs and TCAs in dogs. In cats, buspirone has been found to be effective in treating feline urine spraying (primarily an anxiety related condition) when given singly, yet multiple oral dosing per day may be difficult in some cats. Repetitive dosing likely has cumulative effects. Buspirone has few side effects, yet it may increase intercat aggression. Trazodone is most commonly administered to dogs as an adjunct. It acts as a serotonin agonist/antagonist with the most common effect seen being some sedation.

Dogs: Buspirone: 1-2 mg/kg PO q8-12 hours Cats: Buspirone: 0.5-1 mg/kg PO q8-12 hours

Dogs: Trazodone: start at 1-2 mg/kg PO q8-24 hours, dose to effect 2-8 mg/kg PO q 8-12 hours

Tricyclic Antidepressant: Mirtazapine may be used as an adjunct medication to a mainstay SSRI or TCA in dogs. It primarily is used as an appetite stimulant to help foster classical counter conditioning, but it also has anti-emetic and anti-anxiety properties. The mainstay dosage is two times the adjunct dosage; no higher than 30 mg per dog per day.

Dogs: Mirtazapine: Adjunct dosage: 1/8 of a 15 mg tablet PO SID for dogs <7 kg; 1/4 of 15 mg tablet PO SID for dog, 8–15 kg; 7.5 mg PO SID for dogs 16–30 kg, 15 mg PO SID for dogs >30 kg

Alternative Therapies

Alternative therapies consists of products that may help to lessen anxiety in addition to conventional therapy. Rarely are they effective as standalone products for treating separation anxiety. They may include: Thundershirt/Anxiety wrap, dog appeasing pheromone (Adaptil)[14], the feline facial pheromone (Feliway) aromatherapy (lavender/chamomile)[15-17], auditory stimulation[18,19], food storage toys, and remote food dispensers (Treat n' Train/Manners Minder, Pet Tutor). Dietary products such as Royal Canin Calm is available for cats and dogs under 15 kg body weight. Alpha-casepine (Zylkene) is available in a capsule form for dogs and cats. L-theanine (Anxitane) may also have anti-anxiety effects in milder cases.

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