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Canine Dominance Aggression Towards People

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A common and potentially serious behavioral problem confronting pet owners and the small animal practitioner is aggression. Of the several types of aggression, dominance aggression is the most common. Over one million people a year are bitten by dogs in the United States alone.

**Aggression Defined**

Aggression is defined as a behavior that leads to, or appears to lead to, the damage or destruction of some object. Aggression also is defined as a competition between members of the same species or between different species. It plays a part in the process of survival. Animals that obtain and maintain access to the necessities of survival pass their genes to future generations, thus illustrating the value of aggression.

As a dog becomes offensively aggressive, the ears become erect, the hair rises on the dog’s back and neck, the dog stares directly at the target, the lips are retracted vertically exposing the canine teeth and the dog barks and growl threateningly.

Aggression is influenced by motivational states such as sex, age, size; physiologic states including hormonal status, hunger, or state of health; environmental stimuli such as the distance between animals or specific locations, whether or not the animal’s territory is being invaded; and the outcome of previous encounters with other individuals.

**Aggression Classified**

There are five important functional classifications of aggression which must be understood in order to differentiate them from dominance aggression:1,2

1. Predatory - the dog perceives an animal or person as prey and pursues or attacks. This attack typically involves chase, leap, bite, shake or some combination of these behaviors. Predator aggression is directed at moving objects, such as humans, animals or a moving machine. Unusual noises or cries may also elicit this behavior.
2. Possessive - the dog can normally be approached by other animals or people, unless it is in possession of food, toys, or objects. Possessive aggression is often associated with dominance aggression, however, it differs in that the dog usually accepts the dominant position of people in their home in all circumstances except approaches to food, toys, or objects.
3. Protective - the dog acts aggressive when the dog’s home area, household members, or animals that regularly reside in the area are approached. The dog perceives this as a threat. The likely objects of this protective aggression are people and animals. Both intact and neutered males and females exhibit protective aggression.
4. Fear Induced - the dog is defending itself rather than owner or property. Usually the stimulus of fear is the object of the aggression, but the fear is quickly generalized to similar people and situation.
5. Redirected - the dog is motivated to bite or growl at a person or an object, but if something prevents it from doing so, it may redirect the aggressive behavior to some other person or object.

**Dominance Aggression**

Understanding the various types of aggression and their associated signs and stimuli permits one to determine if the problem behavior is actually a dominance aggression or some other type. Dominance aggression is characterized by a dog that assumes dominant postures (stare, stand over), resists submissive postures (roll over, push, pet, or groom), threatens at passage ways, becomes upset when disturbed while sleeping or resting, and may not be aggressive to all members of the family. Punishment escalates aggression is
some dogs.

Dominance aggression appears more frequently in the American Cocker Spaniel, English Springer Spaniel, Lhasa Apso, Miniature Poodle and mixed breeds of these types. 3 Predisposition to dominance aggression may be strongly influenced genetically.2,3 Dominance aggression also appears more frequently in males and neutered females.

Dominance aggression towards people develops in puppies less than six months of age but most cases are seen after the dog has become sexually (1 year) or behaviorally (2 years) mature. Puppies 6-12 weeks of age begin to establish a dominance hierarchy within a litter related to possession of food or expression of dominant gestures such as standing over. This, however, does not mean that the relationship that exists among these puppies will relate in any way to a dominant-submissive structure of these dogs in the human family, provided the family does not let it occur.

A dog socialized to people develops attachments to them and interacts as if they were members of its pack. Thus, understanding the social organization of a dog pack is helpful in understanding dominance aggression.

Dominance order can be simple in which one individual rules over all other members of the group and there is no distinction in rank among the other subordinant members of the group. More commonly, dominance hierarchies involve a more or less linear sequence: one animal, alpha, dominates all others. The second individual, beta, dominates all animals but alpha. A triangular relationship is presented when animal A is dominant to B, B dominant to C, but C is dominant to A4. A dominant aggressive dog may not be aggressive to all family members. Pack hierarchies may fluctuate as a household membership changes, or a dog may gradually work itself into a dominant position within a family. Dominant dogs usually will not show aggression to a person over whom they are clearly dominant or to whom they are clearly submissive. Rather they are aggressive toward those who confront or challenge them. Dominance aggression is directed primarily at members of the family who own the dog. It occurs when protecting access to critical resources or resisting dominant gestures by family members.

Conflicting thoughts exist as to the association between the type of dog owners and the prevalence of dominance aggression problems. Some suggest that those who have not owned dogs before, or have not taken them to obedience school are likely to have problems with dominance aggression.3 In contrast, others suggest that previous ownership and obedience training have little effect on aggression. This suggests that some dogs are predisposed to exhibiting dominance aggression and would present a problem to almost anyone who owned them.

**Diagnosis**

Diagnosing behavioral problems begins by ruling out medical causes. Investigation of the problem may include past medical and surgical history, CBC, blood chemistry, urinalysis, hormone assay, radiographs, or even a spinal tap and EEG. Some possible medical causes of aggression include endocrine disorders (hypothyroidism), infectious diseases (rabies), brain tumor, hepatic encephalopathy, congenital defects and inherited conditions (such as Springer rage and copper storage disease). Visual impairment, heat intolerance, painful conditions such as anal sacculitis, arthritis and otitis or even diet may aggravate or contribute to aggression.5

Once medical causes have been ruled out, a detailed behavioral history, including assessment of the relationship between the dog and each family member, must be obtained in order to differentiate a dominance aggression behavioral problem from other common behavioral causes of aggression.

Typical presenting complaints about a dominant aggressive dog are “a sudden, unprovoked aggressive attack”, “funny, glazed look in the eyes” or “the dog didn’t seem to know what it was doing”. A diagnosis of dominance aggression is also made when aggression is directed to a person when the dog guards a resting place, assumes dominant postures such as standing over or staring, and/or resists petting, hugging, pushing or pulling. All these types of dominance aggression are characterized by expressions of bared teeth, growling, snapping, or biting.

**Treatments**

Dominance aggression can be treated by environmental manipulation, physiologic intervention, and behavioral techniques.

Environmental intervention6 involves a change of owner. Dogs that are extremely
dominant toward one type of person, such as a very quiet, mild mannered individual of small stature, may be completely inhibited and submissive around individuals who are knowledgeable about dogs, are assertive without being malicious and are of larger physical stature. Other environmental variables that may precipitate aggression in a male dog are the presence of a bitch in estrus or striking a female dog in the presence of a male with which she is housed. These situations can easily be avoided.

Physiologically, castration and progestins, can be used to maintain dominance over the dog while establishing behavioral techniques. Castration is effective in reducing dominance aggression in some male dogs because of the reduced testosterone level. Neutering, however, doesn’t suppress signs of dominance aggression of female dogs towards people. Progestins reduce plasma testosterone levels and thus suppress typically masculine behaviors associated with dominance aggression problems. Progestin therapy may consist of administration of megestrol acetate (Ovaban) at 2.2 mg/kg/day P.O., followed by 1.1 mg/kg/day P.O. for 2 weeks. The dose is then progressively reduced and withdrawn. Medroxyprogesterone acetate (Depo-Provera) also can be administered at 10 mg/kg I.M. or S.Q. as needed. Secondary complications to progestin therapy include pyometra in intact females, mammary development in males, decreased spermatogenesis, increased appetite particularly with ovaban, increased friendliness, and increased depression. Unless combined with behavioral modification, the aggressive behavior usually returns when the drug therapy ceases.

Behavioral modification techniques can be used alone or in combination with other therapies. The primary goal is to get the dog to assume submissive and/or nonaggressive behaviors in situations that previously elicited aggression while avoiding personal injury to the owner.

All situations known to elicit aggression should be identified and avoided in order to prevent reinforcing the dog for its dominant position. The dog should acquire a new perspective on life, “nothing in life is free”. The dog must learn to defer to the owner and sit or lie down before it gets anything it wants. The owner must teach sit and stay commands. The critical step in reversing the dominance hierarchy is never letting the dog demand anything.

Next counterconditioning procedures can be started. To do this, alternative behavior is rewarded. The dog is taught to tolerate being pushed onto its side, rolled over, having pressure put on its neck or side, and accept being grabbed by its neck or muzzle.

After obtaining control over the dog, slowly expose the dog to situations that previously evoked aggression. For example, a person can begin by reaching for the dog without touching it then reward the dog if it tolerates the reach. The reach is slowly extended toward the dog. If the dog elicits signs of aggression at any point the person should not proceed any further. The person now has two choices, back-up and then re-extend the hand but not quite as far, or stay in position until the dog stops growling and then progress forward again a very short distance. The dog is rewarded only if it tolerates either of these two approaches. Ideally this program should be used for each situation that previously elicited aggression. Giving rewards correctly in these situations can facilitate the program. It is important however that the owner not make the mistake of provoking an aggressive act and then reward the dog when it resumes a neutral position or show the reward after the dog starts to growl.

Time-Out Punishment is another technique used to treat dominance aggression. This procedure involves moving the dog from a reinforcing environment to a nonreinforcing environment immediately after each occurrence of aggressive behavior. The time-out environment can be a utility room, large closet, basement, bathroom, or any room provided all sources of reinforcement for the dog are eliminated. The dog must be isolated from food, water, toys, people, or other animals. As little as three minutes in the time-out room can function as an effective aversive or punishing event.

The dog is first commanded to sit or lie down. If it fails to obey, it is taken to the time-out room by the collar or leash to minimize physical contact with the owner [a muzzle may be necessary]. If the dog is still misbehaving after three minutes, add 30 seconds until the dog stops misbehaving. The use of a verbal reprimand such as “bad boy” in association with time-out will eventually gain aversive properties itself and can be used alone in place of time-out.

The advantage of time out punishment is that it decreases aggressive behavior without eliminating desirable watch dog behavior. This system also works well with large dogs that pose
a serious threat if aggressive. Generally the amount of time needed to reduce aggressive behavior significantly is six days to six weeks.

Another method of treatment involves establishing the "Leader-Follower Bond" in the puppy. The owner's first task is to train the puppy to pay attention to him or her, while stressing physical contact with the animal. Handling exercises are then used to teach the puppy to assume a subordinate role. The puppy is lifted and held so that the handler can establish direct eye contact. If the dog struggles, the handler raises his/her voice and gives the dog a quick shake. The dog is praised when it settles. Next, pick up and hold the pup in an inverted position (puppies back toward the floor). Next, straddle the dog, lock hands under the dog's chest behind the front legs and lift the dog off the floor again raising the voice and shaking if the pup struggles. The final exercise involves holding the pup in lateral recumbency. Place the pup on its side while holding onto the scruff of its neck with one hand. Then gently handle the dog's feet, legs, ears and tail, put a hand around the muzzle and put your fingers in and out of its mouth. Repeat this until the pup becomes desensitized to the process.

Two last resort procedures for handling dominance aggression include physical punishment and euthanasia. Physical punishment generally should be avoided because it may elicit additional aggression in these dogs. If physical punishment is used, it should be limited to dogs highly likely of submitting to the threat of punishment. To be effective, punishment must be immediate and consistent when the dog manifests aggressive dominance. However, when administered after the dog has established a dominant position, punishment usually results in escalated aggression and may endanger the owner.

Euthanasia may be the last choice for a dog with a dominance aggression problem not responsive to treatment. It is necessary to advise an owner not to keep a dominant aggressive dog. Even a mildly aggressive dog may prove too dangerous to children or individuals unable to understand or implement therapeutic procedures. Bringing up the topic of euthanasia also makes the owner aware of the seriousness of the problem.

Prevention

Prevention of aggression begins with appropriate rearing, exposing puppies to new people, situations, and environments during critical periods of socialization and periodic exposure thereafter. Establishing the Leader-Follower bond also can be implemented as a prevention program. Command or request the dog to obey only if the person is in a position to enforce the command. Unenforced commands give the dog an advantage in the dominance hierarchy of the home. Avoid tug-of-war play. Finally, insist the dog allow household members to go through entrances and exits ahead of it. This can be accomplished with stay and come commands.

Conclusion

Understanding and diagnosing dominance aggression of dogs toward people begins by understanding and eliminating other causes of aggression. An accurate history and knowledge of aggression signals are the foundation to diagnosing dominance aggression problems. Once diagnosed, the various treatment programs can be implemented. All treatments carry a guarded prognosis and families with small children or elderly people should be particularly advised of the risks involved in keeping a dominant aggressive dog.

References


"What counts is not necessarily the size of the dog in the fight — it's the size of the fight in the dog."

* Dwight D. Eisenhower