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Canine Dominance Aggression

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Each year, millions of dogs are taken to humane shelters across the United States. Of these dogs, it has been estimated that 15-20 million of them are euthanized. The majority of these animals are taken to shelters for some sort of behavioral problem, and by far, the most common behavioral problem found in dogs is aggressiveness.

Canine aggression can be defined as an inappropriate threat, challenge, or attack by a dog against another dog, animal, or person in a given situation. It is important to realize that not all canine aggression is inappropriate—remember, one of the reasons dogs were originally domesticated was for protection. When a dog attacks visitors or family members, however, it is an inappropriate response. For all aggressive dogs, it is very important to determine the appropriateness of the behavior. Was the dog threatened, or was the aggressiveness really unprovoked?

Types of Aggression

While the focus of this article is canine dominance aggression, it is important to remember that there are several other categories of aggression in dogs. Due to the differences in therapeutic approaches for each type of aggression, the type of aggression expressed by the dog should be determined before any treatment is attempted. Some of the different types of aggressiveness seen in dogs include competitive, intermale, fear-related, pain-induced, territorial, predatory, maternal aggression, learned, and idiopathic aggression.

Dominance aggression is generally directed toward the owners in direct response

to their behavior. Examples of dominance aggression include, but are not limited to, the dog growling at the owners when they step over it or ask it to move, snapping at the owners when they try to groom it, or growling at the owners when they come near its food.

Other types of aggression can usually be differentiated by examining the circumstances under which they occur. Competitive aggression is usually directed at another dog in response to competition for a desirable object or area. Intermale aggression is simply aggression expressed between two male dogs. Fear aggression occurs when a dog is frightened. This can occur when a person reaches for the animal or in any circumstance where the animal would attempt to escape if possible. Pain-induced aggression occurs when an animal is injured, as dogs have a natural tendency to bite back in self-defense when injured. This type of aggression usually resolves if the painful stimulus is removed. Territorial aggression occurs when an animal is defending its territory against anything it considers threatening. This may be expressed simply as barking or as outright attacks. Predatory aggression does not usually deal with threats from the dog but rather their natural tendency to be hunters. This can cause problems when the dog kills other animals such as cats or chickens. Maternal aggression occurs during pregnancy, pseudocyesis, or whelping in response to a perceived threat by the bitch. Some dogs may show maternal aggression when dealing with their toys. These dogs tend to protect their puppies or toys from long distances with growling and usually will not bite unless the item is taken from them. Learned aggression occurs when the dog is taught or learns that it can get what it wants by being aggressive. This can happen when the owner stops doing a task, such as grooming, because the dog growls. The dog then learns that when it growls, it

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avoids an experience it may find unpleasant. Idiopathic aggression is a term applied to cases of aggression that appear truly abnormal and unexplainable. An example of this is an inexplicable, vicious attack of a family member. Dogs often seem dazed during these attacks and usually appear normal at other times¹.

Normal Canine Behavior

To understand canine dominance aggression fully, one must have an understanding of normal canine behavior, both domestic and non-domestic. Canines in the wild live in packs. Within these packs, there is always a hierarchy involving all animals of the pack. The alpha male is considered the leader and dominant animal. The alpha female is usually the second ranking member of the pack. The remainder of the pack members challenge each other for the most favorable positions. They will even challenge the alpha male and female in an attempt to upgrade their status. Confrontations between pack members may be in the form of simple vocalizations or body language, but they may escalate to physical attacks, either offensive or defensive.

This complex hierarchical system can also be applied to feral dog packs and multiple dog households. In both situations, there is always an alpha member and subordinate pack members. It does not mean, however, that there will always be physical confrontations between pack members as they challenge each other. In most packs, there are very few actual physical attacks. The subordinate animals are very aware of how to avoid a physical confrontation just as the alpha animal is very effective at subtly reinforcing their dominant status without physical attacks.

When humans bring a dog of any type into their home, they effectively create a pack situation for that animal, whether the humans are aware of it or not. A large part of the time, this is not a major problem because most dogs innately defer to people.² This deference is further reinforced by any obedience training the dog receives. Problems do arise, however, with a dominant dog who challenges the owner's authority and does not accept their leadership; this is especially

true when the owners do not understand canine behavior and body signals. In many instances, the problems with dominant-aggressive dogs begin with simple acts on the part of the dog that are misunderstood by the owner as non-aggressive, such as the dog putting their paws on the owner's shoulders, which the owner may interpret as a "hug."

Factors Affecting Dominance Aggression

Most types of canine aggression, including dominance aggression, are affected by a variety of factors including genetics, gender, hormonal influences, socialization, and owner perceptions.

Genetics It is well known that some breeds of dogs, and certain lines within breeds, have a greater propensity toward aggressiveness than others. Golden Retrievers and Labradors are well known for being friendly and easy-going, whereas people tend to think of Pitbulls and German Shepherds as being aggressive. Some breeds that seem to be prone to dominance aggression are Chow Chows, Rottweilers, Dobermans, Lhaso Apsos, Poodles, Cocker Spaniels, Huskies, Akitas, Schnauzers, and several breeds of terriers.

Breeders of dogs can have a significant impact over time on behavior of specific breeds. Throughout canine history, several breeds such as the Irish Wolfhound and Great Dane have been labeled ferocious, only to become more docile with shifts in the breeding trends.³ Breeding trends can also be deleterious, however, as seen with the breeding of the American pit bull terrier specifically for fighting.

Gender Most forms of aggression, especially dominance aggression, seem to involve more male dogs than female dogs.⁴ This may stem from differing gonadal secretions between male and female dogs prior to birth causing general differences in aggressive temperament.¹

Hormonal Influences Dominance aggression may be associated with different hormonal factors. The higher occurrence in males, worsening of signs seen in bitches following ovariectomy, and the fact that castration and progestin treatment sometimes reduce problems in males support

some sort of hormonal involvement in dominance aggression problems.⁵ The nature of this proposed association has not yet been established.

Socialization It is generally assumed in animal behavior that early experiences are more important to social development and adult behavior than are experiences later in life. This is also true in regard to dogs and aggressiveness. Dogs that receive little socialization or exposure to new experiences between 3 and 12 weeks of age may become fearful or aggressive with people or other animals.

Puppy classes beginning at 8-12 weeks of age will aid in socialization. These classes can help puppies learn how to interact with different people and dogs in a non-aggressive manner and will also help reinforce the dominant position of the owner. These classes should be followed with obedience training as the dog matures.

Owner Perceptions Owner perceptions of their dog's behavior can lead to an increase in dominant-aggressive behavior and possibly to the development of the problem. Humans tend to anthropomorphize when dealing with their animals and many times will forego their own comfort instead of disturbing their pet. For instance, they may sit somewhere else because their dog is on the couch. Owners lavish their pets with love and affection (which is not necessarily wrong!), but at times, this may be interpreted by the dog as reinforcement of its dominant status. Owners allow their dogs on furniture and in beds, they step around them so as not to disturb them, they are willing to play and be affectionate with the dog at the dog's command, they follow the dog's lead on walks, and they may let the dog protect its food and toys by growling. Many owners treat their dogs in this manner without any problems. However, if the dog has any dominant tendencies, this continual reinforcement will strengthen the dog's belief that it is indeed the 'top dog' in the pack.⁵

Owner perceptions and actions may not in themselves cause dominance aggression in dogs; however, they can be very important when dealing with these problems. It can be very difficult to make owners who treat their dogs in the above manner realize they must be 'dominant' over their dogs to



Danelle Bickett, ISU

Our SCAVMA President, Tom Beall, and friend "Howie" are play-fighting. A dog is considered to be dominant-aggressive if actions such as this elicit menacing snapping and growling responses.

improve their behavior. This concept, to many owners, may sound mean and inhumane.

Presentation

The presentation of dominance aggression in dogs often correlates with maturity. Thus, dogs will often be presented between one and three years of age for this problem. Many of these dogs will be males, although the problem does occur in female animals.

It is imperative that complete and detailed clinical and behavioral histories are taken. All possible medical causes and other forms of aggression must be ruled out before any treatment is attempted. Factors to be determined when investigating the problem include duration of the problem, frequency, and place of occurrence, person or animal toward whom the aggression is directed and under what circumstances, and any attempted treatments.

During the behavioral history, it is often reported that the dog's attacks are completely unprovoked and sudden. Owners may report that the dog guards objects in the home or threatens the owner when dis-

turbed or resting. It may be reported that the dog resists being rolled over, groomed, or petted. The owners may also acknowledge that the dog is not aggressive to all family members or toward strangers. Other findings of the behavior history may include the dog growling when stared at, disciplined, restrained or lifted.

While the owner may consider these actions to be sudden and without warning, the animal in question will often give the owner subtle warnings. A dog exhibiting dominant behavior will use body language to display its dominance. Some classic features of this dominance display include the dog maintaining an erect body posture with ears forward and tail erect. The dog will stare at the owners and may growl. A dog placing its paws over or on a person is also a sign of dominance.

Treatment of Dominance Aggression

Owner expectations are important to consider when identifying and attempting to treat dominance aggression. After a diagnosis of canine dominance aggression is reached, the owners must be made aware of the potential time commitment and lifestyle changes involved in treatment. If the owners are not willing to commit to a treatment regime, then treatment obviously will not work and the owners should consider other options.

Pharmacological Intervention Drug therapy can be effective for some types of behavior problems and aggression in dogs. Because of the seriousness of dominance aggression, however, if drug therapy is attempted, it should not be relied upon as the only treatment used. It has been reported that progestins, megestrol acetate, or medroxyprogesterone acetate are effective treatments for some signs of dominance aggression and intermale aggression. Caution should be used when prescribing megestrol acetate or medroxyprogesterone due to their potential side effects. Fluoxetine and amitriptyline hydrochloride can also be used to alleviate some signs of dominance aggression. One should keep in mind, however, that drug therapy is rarely effective in treating dominance aggression and may, in some instances, make the problem worse.

Direct Therapeutic Approach Several variables need to be addressed before one chooses a direct therapeutic approach to dominance aggression. Under no circumstances should this approach be taken if there is the possibility of owner injury. Also, one must consider the capability of the owner in handling direct confrontations with his or her animal.

The direct approach exploits a dog's natural tendency to become subordinate when it realizes that being dominant is not an option.⁴ Remember that in pack situations, dominant positions are maintained by the threat of force or force itself. With the direct approach, the owner reacts to the dog's aggressive behavior with an appropriate force. This can be accomplished by shaking the scruff of the neck of a small dog or by using a choke chain with a large dog.

With this approach, it is imperative that the owner 'win' the confrontation or the dominant position of the dog will be reinforced. Some dogs will become more aggressive when confronted in this manner and a large amount of force will be necessary for the owner to 'win'. Because of the potential for owner injury, and the fact that there are other treatment options, this approach probably should not be the first treatment choice.

Indirect Therapeutic Approach The indirect treatment approach can be very useful with dogs that will not give in during any physical confrontation, as well as with dogs that may respond to the direct approach if the owners were capable of enforcing it. The indirect approach requires strict discipline on the part of the owner and family members, and compliance may pose a problem.

There are several components to the indirect treatment approach that the owners will need to understand and be able to perform in order for this approach to be effective. One should keep in mind, however, that the following general instructions are only guidelines, and treatment regimes should be tailored as needed to each specific case.

The general concept behind the indirect treatment approach is to make the dog completely dependent on the owner and the owner's wishes, thus making the owner the alpha pack member. This is accomplished in several ways. First, the owner should be instructed to avoid any and all confronta-

tions with the animal throughout the duration of the therapy. For example, if the dog confronts the owner when asked to get out of bed, the owner should not allow the dog in the bedroom. Next, the owner and family members must withhold all normal affection and feeding from the animal. Frequently throughout the day, the owner and family members should give the dog various commands, such as "sit" or "lie down". If the dog obeys the commands, the person who gave the command should lavish praise and affection on the dog and give it a portion of its normal food ration. By doing this, the dog is not deprived of human contact or food, but it only gets these things on the owner's terms rather than on its own. Thus the owner is in complete control of the dog without physical confrontation, and therefore, the owner indirectly assumes the dominant position. As treatment progresses, the owner should eventually come to a point where he or she can punish the animal as needed without fear of reprisal from the dog.

If the dog only has problems with one person in the household, then all other family members should completely ignore the animal at all times. Only the person affected should give the dog commands and then affection and food.⁴

Regular checkups are very important during the initial therapy period. While the veterinarian will not be directly involved with the therapy at the owner's home, he or she will need to remind owners of the importance of what they need to do, because it can be very hard for owners to withdraw love and affection from their animals.

Other Therapeutic Options There are several other methods worth considering when attempting to treat dominance aggression in dogs. Many of these options can be used simultaneously with one or more of the above methods. In all cases of dominance aggression with an intact male dog, neutering the animal should be the first treatment recommendation. Other approaches include using a Promise Collar®, counterconditioning, rewarding submissive behavior exhibited by the dog, and handling exercises, which are discussed later. In severe cases, tooth extraction, lobotomies, cingulotomies, or euthanasia should be considered.



Biomedical Communications, ISU

Veterinarians can provide clients with the invaluable service of pet selection, which can prevent many owner-pet mismatches and can help owners make educated choices when deciding to purchase a pet.

Prevention

As mentioned above, there are numerous problems encountered when trying to treat dominance aggression in dogs. Some cases, despite excellent owner compliance and sound therapeutic protocols, will never improve. Therefore, it is logical to attempt to prevent dominance aggression before it becomes a problem if at all possible.

In many instances, dominance aggression is preventable, but there are certain limitations. Prevention will only be possible if owners are aware of the problem before or shortly after they purchase a dog. Prevention is better accomplished with puppies before serious problems present themselves.

There are several services veterinarians can provide to help their clients prevent the problem of dominance aggression, including help with pet selection, temperament testing, and other client education.⁷

Pet Selection Veterinarians can provide clients and potential clients with the invaluable service of pet selection. This service can help prevent many owner-pet mismatches and can help potential owners make educated choices when deciding to purchase a pet. Clients may have no idea which breeds of dogs have aggressive tendencies and which may not. Thus, this service can be very helpful.

This service can be provided in a variety of ways. Advertised pet selection classes open to the public could be offered. Individual counseling is also possible when a client indicates that they are looking for a new pet. One good method of client education on different breeds that involves little time commitment is to have a reference library from which clients can check out books.

Temperament Testing Temperament testing can be done by the veterinarian or by the client. Chances are good that if the veterinarian is performing the testing, the owner has already purchased the animal. However, if clients know that this service is offered, they may bring pets to the veterinarian for a 'prepurchase exam'. This type of exam is especially helpful if the client is purchasing an adult animal. The first puppy visit is also a good time to do this type of testing.

There are a few easy exercises one can perform to determine a dog's demeanor and possible future behavior. One should keep in mind, however, that even if a dog 'tests' as dominant, there is no way to know for certain if that dog will have problems with dominance aggression.

The first thing to be done is to simply observe the animal in a room with either the owners or the veterinarian present. Is the dog friendly and curious or does it cower in a corner? Next, several hands-on tests should be performed. If the animal is a young or small puppy, gently pick the animal up by the scruff of the neck and suspend it in midair. One should time how long it takes the pup to be still and quiet for 10 seconds. If this takes longer than 10 minutes, the dog is considered to have a dominant personality. When the puppy is held by the scruff, it is being told that the person is dominant over it; if it resists excessively, it is trying to assert its dominance over the person. If the animal is too large to scruff, it can be grasped securely under the chest and have its front legs lifted off the ground. Again, time the dog to see how long before it becomes still and quiet for 10 seconds. The dog resisting for more than 10 minutes has a dominant personality.

Another test is to lay the animal on its side and hold it there. Time the length of time before the dog will lie still and quiet for

10 seconds. Again, if it takes longer than 10 minutes, the dog has a dominant personality. If the dog is small enough, it can be suspended in midair and looked in the face. Once again, time the dog as above. A final test that is timed and interpreted as above is to cradle the dog in a person's arms until it is still and quiet.⁸

If the dog is discovered to have a dominant personality, it is very important to counsel the clients on normal canine behavior, possible future problems, and possible preventative measures.

Client Education For an owner to have an effective role in preventing aggression problems with their pet, they must have an understanding of normal canine behavior. Most clients will accept the existence of hierarchical systems in canine society and will understand that they have now entered that hierarchy by bringing a dog into their home. Clients who understand this will probably also understand the importance of the alpha position in the pack and will accept their need to fill this position. There are some clients, however, who will look upon this explanation with much disdain and will think it cruel and inhumane.

There is an alternative method of explaining how their relationship with their dog must change in order to prevent problems. In the alternative method, rather than explaining about the alpha member and subordinate members, the relationship is discussed as one between an adult and a juvenile. In some instances, dogs will view family members as equals, and therefore may treat them as other dogs, occasionally biting and growling. Thus, what needs to be done is not necessarily to 'dominate' the animal, but to have it treat the owner as a juvenile pack member would treat an adult pack member.⁵ In packs, juvenile animals do not usually threaten the adult members by attempting to show their dominance. They know their place in the pack and show the utmost respect for the adult members. On the other hand, juvenile dogs have no problem threatening and dominating their equals in the pack. With this explanation, some owners feel more comfortable treating the dog as they would an older child by not lavishing so much attention on it and placing certain behavioral requirements on it.

After explaining normal canine behavior (using either the dominance or the adult-juvenile approach), it is important to explain to the client why this is important. Thus far, it has been established that the dog has a dominant personality. If the client is currently having no problems with the dog, he or she may not understand where to proceed with all of this information. Often, simply providing clients with scenarios on possible behaviors is enough for them to understand the importance of what you are telling them. Most people who feel they have a 'good dog' would not like to think that their dog may begin growling at them when they ask it to do something. Offering possible scenarios will often make the clients more receptive to your suggestions on prevention.

There are four easy exercises that can be explained to the client that will greatly aid in establishing the dog as the subordinate family member. When suggesting these exercises, it is important to remember they should be performed by all able family members, children included, and the combination of exercises should be done for 10-15 minutes, 3-4 times a week. These exercises can be used on adult dogs, but caution should be used if there is any chance the owner could be injured.

These exercises are similar to those used for the temperament testing. The first consists of scruffing the animal and lifting it into the air or standing behind the dog, grasping it behind the front legs, and lifting its front legs off the ground. The owners should hold the animal up until it stops resisting their efforts. Another exercise involves laying the animal on its side and holding it there, again until it stops struggling. The final exercise involves suspending the animal in mid-air facing you. It is important to realize that the animal only needs to stop resisting for ten seconds. Puppies especially have very short attention spans, and it is important to reward them quickly for the desired behavior.

There are several other things the clients can regularly do with their dog to reinforce their dominant status. Some of these include regularly taking the dog's food away while it's eating, holding the dog's mouth closed until it stops resisting, and staring at the dog until it looks away.

As the owners consistently perform these exercises, they will notice that it takes less and less time for the animal to stop struggling. This signifies that the animal is accepting that the owner is in control. It is a good idea to do follow-up temperament testing with these animals in 3-4 weeks to monitor progress.

Conclusion

Canine dominance aggression can be very challenging and rewarding to treat and prevent, and there definitely is a need for these services in the practice of veterinary medicine. We can provide a valuable service to our clients by providing pet selection counseling, temperament testing, preventative counseling, and treatment of dominance aggression. The key to treatment and prevention of dominance aggression in dogs is good client education, which in itself will often boost compliance.

One must remember that while it may be possible to treat dominance aggression in some dogs, treatment is by no means a cure, only a possible control measure. It is also important to realize that not all dogs are treatable, and not all owners will follow your advice. You may encounter some dogs that are an imminent threat to you and their owners, and many of these, unfortunately, may need to be destroyed. ♦

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