Aggressive Dogs: Assessment and Treatment Considerations*

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When a family presents a pet, especially a dog, for a history of aggression, an accurate diagnosis is critical, and the potential for harm to other animals or to humans makes a comprehensive understanding of behavioral diagnostics essential. However, diagnosis and treatment of aggression present special challenges, and general practice veterinarians need to be aware of not only the possible motivations, targets, and risk factors for aggression but also the need to appropriately inform the client of the limitations of treatment, the risk to household members and to others, and when to seek advice from a behaviorist. Safety issues are a prime consideration if the family chooses to pursue treatment rather than euthanasia.

All animals can cause harm, even as part of normal behavior. This article addresses canine patients with a history that shows that, under certain circumstances, they will cross the boundary of “may be aggressive” into “definitely will be.”

DIAGNOSTIC CONSIDERATIONS

A common error is to assume that dominance is the underlying motivation for aggression. True dominance aggression directed toward humans is, in fact, very rare. It is slightly more common toward other dogs, but interdog aggression occurs for many reasons other than dominance issues and should not be assumed to be the underlying cause of dog fights. Fear is a much more common cause of aggression, especially toward humans. Dogs may also be afraid of other animals or inanimate objects, which can cause confusion and an incorrect diagnosis in some cases. For example, if a dog is afraid of the bathtub, it may become aggressive toward humans who put it in the bathtub, even if it is not aggressive under other circumstances. Other possible types of canine aggression include territorial, redirected, sexual, protective, possessive, and predatory aggression. In all cases, it is important to identify the circumstances in which the dog is aggressive to help diagnose the motivation for aggression. A careful history may reveal that aggression is associated with a specific place or item (e.g., the house, a toy, food). Animals may have more than one type of aggression. The box on page 275 provides some resources that may help in the diagnosis of canine aggression.

As with other types of behavior problems, before any type of aggression is diagnosed, the veterinarian should perform a thorough physical examination and conduct tests as indicated by the dog’s age, behavior, and clinical signs (e.g., blood chemistry, complete blood count, thyroid function tests, radiography) to rule out medical causes of aggres-

*Feline aggression toward humans and other cats was the subject of two previous columns: “Human Feet Are Not Mice: How to Treat Human-Directed Feline Aggression” (August 2007) and “Intercat Aggression” (September 2007). All Understanding Behavior columns are archived at compendiumvet.com.

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sive behavior, such as pain, infectious disease, occult injury, or neurologic disease.

**RISK ASSESSMENT**

Over the years, I have often heard the comment that the best thing to do with aggressive dogs is to euthanize them—all of them. However, if this were our approach, then most or all dogs would be euthanized. If an 11-year-old miniature poodle with arthritis growls and snaps without making contact with flesh, it has shown aggression. In this particular case, treating the pain of the arthritis and teaching the owner to manage the dog so that they do not cause it to experience pain is a reasonable approach. In my opinion, euthanasia would not be indicated.

Lumping all aggressive dogs together is clearly too simplistic an approach. While all dogs have the potential to be aggressive and even to bite, some clearly present a greater risk to public health than others. Assessment of risk factors, therefore, plays a crucial role in deciding how to treat an aggressive animal and whether to refer it to a behaviorist.

**Categorizing Aggression**

As part of assessing risk, the veterinarian should try to ascertain whether the dog is aggressive toward a particular group. Does it threaten only other animals? Is it aggressive solely toward strangers? Does it snap at or bite its owners? Does it chase children? In general, animals that are aggressive to their owners pose a greater risk of causing harm, as their owners may be unable to manage them to prevent them from biting strangers. Likewise, if a dog is aggressive toward children and there are children in the household, the risk for harm increases.

**Animal Risk Factors**

Several factors relating to the dog itself affect its potential to cause harm. **Size** is one. Large dogs, by virtue of their weight, tooth size, and jaw strength, have a greater potential to cause serious injury or death than do small dogs.

The **type of aggression** is also relevant to an animal’s potential risk for causing harm. A dog with fear aggression toward humans may present a risk for causing harm only if someone corners it or reaches for it. While it is incumbent on the owners of such a dog to ensure that it is not allowed into a situation in which a naïve person or a stranger might inadvertently trigger a bite, knowledgeable owners may be able to maintain fear-aggressive dogs with little chance of injury simply by avoiding behaviors that might trigger aggression. Even if such an animal is outside, it is likely to avoid encounters with strangers. In contrast, a dog with territorial aggression is likely to present a greater risk for causing harm, simply because it may approach and initiate aggressive interactions with strangers who enter, or attempt to enter, its perceived territory. Confident dogs that have a history of approaching and pursuing individuals who enter their territory probably present a greater risk for causing harm than dogs that are both fearful and territorial. The latter are often more likely to stand and bark at “invaders” and will bite only if a person approaches them and initiates interaction.

The historic **intensity of the aggression** is also relevant. Any dog may escalate its aggression, but those with an established history of inflicting penetrating bite wounds have demonstrated that they definitely will bite if the right conditions are met. While it is impossible to make exact predictions, especially given the variety of circumstances in which bites occur, a dog that has inflicted multiple penetrating bites during aggressive interactions is probably more likely to cause harm in a future aggressive interaction than a dog that has historically exhibited inhibited bites or snapping at the air. Likewise, a dog with a history of biting deeply and repeatedly in a single encounter probably represents a much greater risk for causing serious harm than a dog with a history of taking a single, quick nip and backing off from the situation. The dog that has historically exhibited inhibited biting in a given circumstance is, nevertheless, probably more likely to cause harm if placed in that circumstance again than is a dog that has responded in an entirely nonaggressive fashion (e.g., presenting a play bow).

**Human Risk Factors**

When the type of aggression has been diagnosed and appropriate treatment is being recommended, special
consideration must be given to the presence of vulnerable people, such as children, elderly adults, or disabled people, in the household. If the day-to-day management of a dog with fear aggression can be accomplished only by healthy, competent adults, the presence of young children or an elderly parent with Alzheimer’s disease can be highly problematic. Young children may be incapable of understanding that an aggressive dog must be left alone or there will be serious consequences, while an elderly parent may not remember that approaching the dog may, in certain circumstances, cause it to bite. Clients who own dogs that present a risk of aggression to especially vulnerable people in the household are probably best referred to a specialist.

**TREATMENT CONSIDERATIONS**

**Permission to Treat**

If, after a thorough risk assessment has been conducted, the owners of an aggressive dog choose to attempt treatment, the veterinarian must decide whether to undertake treating the animal or to refer it to a behaviorist. In either case, the owners must understand that, just as it is impossible to guarantee that a patient will survive surgery, no matter how minor or major the procedure, it is impossible to guarantee that a dog will not bite. It is important to make sure that owners are aware of this and of their personal responsibility to make sure that the animal does not have the opportunity to bite or is not placed in a position in which it is likely to bite. At The University of Georgia, before a consultation regarding an aggressive pet is initiated, clients are required to read and sign an “authorization to treat” form (see the form on page 277) that was developed in cooperation between the university’s behavior service and office of legal affairs. This form addresses a number of pertinent issues.

**Legal Liability**

Both owners and veterinarians should also be aware that aggressive pets raise issues of owner liability as well as practice liability. I refer clients who have particular questions relevant to their own liability to their attorney. While veterinarians knowledgeable in animal behavior can diagnose and offer advice regarding treatment of aggression, they may not be aware of local laws regarding owner responsibilities (e.g., restraint or “vicious animal” laws), especially if their clientele comes from a wide area with varying local ordinances. It is the owner’s responsibility to be aware of local laws regarding pets.

One issue of local and state law with which veterinarians should be familiar pertains to the risks a pet presents to children or other parties. If the pet presents a serious danger to a child or other person and the adult owner acts irresponsibly in supervising the pet, what responsibility, if any, does the veterinarian have to report the situation, and to what agency? Veterinarians should consult their own legal counsel regarding their personal and practice’s liability when it comes to handling aggressive animals.

**Treatment Methods**

A full discussion of how to treat the various types of aggression is beyond the scope of this column. However, I will touch on some aspects of treatment that should be kept in mind.

An accurate diagnosis of the reason for the dog’s aggressive behavior is critical. Attempts to treat aggression can have undesirable consequences if the motivation for the aggression is misdiagnosed. For example, if a dog has fear aggression but dominance aggression is diagnosed, instructions to “dominate” the animal or “teach it who’s boss” are likely to produce two counterproductive results. First, fear aggression is generally exacerbated, not improved, by attempts to dominate an animal. Thus, treatment plans designed to treat presumed dominance in a fearful dog actually cause harm to the patient, making its behavior problem worse. Second, confronting a fearful animal is likely to provoke a bite. Even if the dog has true dominance aggression, simple instructions to “teach it who’s boss” are likely to be counterproductive. The rare, true cases of dominance
Authorization to Treat

Name of Animal ________________________________________________________________

Case No. ______________________________________________________________________

I certify that I am the owner of the above-described animal. I have brought my pet to ___________________ [clinic name] for advice on decreasing its aggressiveness.

I understand that aggression by animals can cause injury, including fatal injury, to other animals, to other people, and to me. I understand that treatment for aggressive behavior is an inexact science, and it is impossible to ensure that my pet will not cause harm in the future.

I understand that the only way to ensure that my pet will not cause harm in the future is to euthanize it.

I understand that if I do not euthanize my pet, it will be my responsibility to take appropriate precautions to prevent my pet from causing harm. These precautions may include, but are not limited to, informing persons near my pet of its aggressive behavior, keeping it on a leash and muzzled or with a head collar, and/or keeping it restrained behind doors, gates, or fencing. I also understand that it is my responsibility to be aware of and to comply with all state and local ordinances concerning aggressive animals.

Finally, I understand that should I choose not to euthanize my pet and it causes harm in the future, I may be held liable for such harm.

I hereby certify that I have read and understood the above and that I am signing this authorization with the full understanding that the treatment of my pet may not eliminate its aggressive behavior.

Signature of Owner ________________________________________________________________

Printed Name ____________________________________________________________________

Date ____________________________________________________________________________

Adapted from The University of Georgia Animal Behavior Service of the College of Veterinary Medicine.
Understanding Behavior

Aggression require careful handling and a gradual shift in the owner–dog relationship without triggering harm to either party. They are best referred to a specialist.

Incorrect assumptions about the motivation behind aggression may also lead to use of inappropriate treatment methods, such as flooding, in which the animal is placed in the situation it fears and forced to stay there. In the case of the dog that becomes aggressive because it is afraid of the bathtub, an assumption that it is trying to control or dominate humans may lead the owners to place the dog in the tub and physically restrain it there. Again, this can easily lead to a bite and exacerbation of the fear. Appropriate treatment for this dog would include progressive desensitization to the bathtub—not to humans—and counterconditioning, perhaps combined with use of appropriate anxiolytic medication. It is extremely rare for flooding to be a safe and effective treatment for animal behavior problems, although there are a few exceptions to this rule.

Even if the reason for aggression is correctly identified, owners must be warned against attempting methods that are likely to lead to their injury. If the owners of a dog that is aggressively excited by other dogs try to flood their pet by leading it past other dogs while restraining it, the owners are more likely to be bitten. Circumstances that are likely to trigger aggression should be avoided while the underlying motivation for the aggression is treated. If a dog becomes aggressively excited by seeing unfamiliar dogs and bites its owner specifically because it is restrained on its leash at such times (e.g., on walks), confrontations with other dogs should be avoided. Instead, progressive desensitization and counterconditioning to the sight of other dogs should be conducted, and the dog should be walked in locations and at times when uncontrolled encounters with other dogs are less probable.

Use of a basket muzzle during the early phases of treatment may be useful. A correctly fitted basket muzzle allows the dog to pant, drink, bark, and even eat treats that are inserted through the mesh. However, if use of a basket muzzle is deemed appropriate for the safety of people or other animals, the muzzle should not be placed on the dog only when potential targets for aggression might be present. The dog should be gradually introduced to wearing the muzzle and taught to associate it with pleasant experiences, such as eating treats or engaging in an activity it finds desirable (e.g., going for a walk). (See “The Multispecies Household,” March 2008, for a more detailed explanation of how to institute use of a basket muzzle.) Once the dog is accustomed to wearing the muzzle on a regular basis, gradual introduction of individuals the dog might be aggressive toward can be initiated. While the owners may be tempted to flood the dog rather than desensitize it because the muzzle will prevent the dog from biting, desensitization is generally a more humane treatment approach.

Medications are sometimes used effectively in the treatment of aggressive animals. Their use should be thoroughly studied and their potential benefits and risks reviewed before they are administered. An in-depth review of this topic is presented elsewhere.1

REFERRALS

Any time clients wish to treat rather than euthanize a dog with which a general practitioner feels unqualified to work because the animal is refractory to treatment, extremely complex, or simply too dangerous, referral to a specialist is indicated. Board-certified veterinary behaviorists are listed on the American College of Veterinary Behaviorists’ Web site, www dacvb.org. As with other types of veterinary specialists (e.g., veterinary oncologists), not every town has a clinic qualified to treat these dogs, so the owner should expect to have to travel to seek the best help available. If the nearest board-certified veterinary behaviorist is prohibitively far away, a second option is to contact the American Veterinary Society of Animal Behavior. Although this is not a certifying organization, a number of veterinarians have years of experience working with such animals.

EUTHANASIA

Many factors affect the decision to euthanize. Ultimately, it is up to the owner to make the decision; however, advising the owner on this difficult topic is the veterinarian’s job. A major consideration is how much of a public health risk the dog presents. If the aggression is severe, what is the risk to the owners? How much risk of bodily harm does the dog pose to the owners, to friends, and to strangers?

Before I discuss euthanasia with an owner, we have a long, comprehensive discussion of the patient’s history, current behavior status, and family dynamics, and once I have formed an opinion of what potential dangers exist if the dog is not euthanized, I explain them thoroughly. Rather than recommend euthanasia per se, I usually begin by pointing out the hazards of not euthanizing. For example, I might tell the owner, “If you choose to take your dog home and attempt to treat him, there is a
good chance that he will bite you again. The next biting incident may be more severe than the last one. Also, you know he occasionally bolts out the door without his leash on. If this ever happens again and he encounters someone walking in the neighborhood, he may well attack them and inflict multiple bite wounds.”

Some owners in such a situation are quite ready to euthanize, even if it is difficult. However, if the owners are strongly bonded to the dog or the dog is “nice” most of the time and only occasionally dangerous, the euthanasia decision may be very difficult, even if the owners see it as inevitable. Leaving the owners alone to discuss the situation for a little while is often helpful in such cases. Occasionally, owners want to euthanize their dog immediately and not risk taking it home. Others like to take their dog home for a few days, especially if they feel they can do so without harm and can manage the bite risk for that time. In helping owners deal with the closure of such a difficult decision, I recommend, if possible, that they give their dangerous dog one last “good day.” While making sure to avoid the opportunity for a biting incident, they can give the dog its favorite food, play its favorite game, and have a pleasant experience with it. Their regular veterinarian is involved in the decision making, and, depending on what is necessary for the case, plans are made for the euthanasia to be as calm and untraumatic as possible for all concerned.

CONCLUSION

Animals do not bite for no reason, and any good behaviorist can determine what provoked a specific bite. In some cases, it may be a normal reaction to circumstances—if, for example, the animal is defending itself against a real, physical attack. However, when aggressive behavior is triggered by what humans perceive as a friendly interaction (e.g., reaching out to pet a dog) or by an event that humans do not perceive as direct interaction at all (e.g., walking past a dog’s territory), it becomes critical for the veterinarian to accurately identify the motivation for the behavior and treat or refer accordingly if the animal is to continue to be allowed to live among humans. Veterinarians who advise owners with dogs that have a history of aggression need to be aware of the many types of aggression, the risk factors that must be considered before initiating treatment, the legal issues involved, and the alternative of referring animals they cannot treat.

REFERENCE