Animal Behavior Case of the Month

This feature is being sponsored by the American College of Veterinary Behaviorists. Readers of the JAVMA are invited to submit reports, which should include a brief description of a behavioral problem, the evaluation and treatment, and a succinct discussion of the case.

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Statement of the Problem
The problem was aggression of 2 weeks' duration between 2 cats in the same household.

Signalment
Cat 1 was a 2-year-old sexually intact male Siamese; cat 2 was his dam, a 5-year-old sexually intact female Siamese.

History
The cats had been living together, without any problems, for 2 years. Two and a half weeks before the behavior consultation, cat 1 had been taken by the owners to a friend's house for a few days to be mated with a female domestic shorthair (cat 3) that was in estrus. According to the owners, that episode was the first copulatory experience for cat 1. The mating went well, but after copulation, cat 3 showed a short, intense bout of aggressive behavior toward cat 1. Although such aggression is part of the normal postcopulatory behavior of cats and injury was not caused, cat 1 was described by the owners as being very aroused on returning home. Shortly thereafter, cats 1 and 2 started to fight.

Aggressive interactions had been severe and frequent since that time. The owners explained that the cats started to fight whenever they saw each other, but neither of them was reported to seek the other out, nor to chase the other after an episode of aggression. Immediately before such episodes, cat 2 adopted a crouching posture, with ears flattened back. Cat 1 was described as arching his back, with piloerection, ears flattened against the back of his head, and tail curved into an inverted "U." Both cats vocalized loudly and frequently throughout the day and hissing was common during aggressive episodes.

Early in the course of the problem, the referring veterinarian suggested castration of cat 1. However, this suggestion was not accepted by the owners. The veterinarian then treated cat 1 with megestrol acetate (5 mg/d, PO). Despite the treatment, aggression did not decrease at all. The owners were seriously considering the possibility of giving away 1 of the cats.

Physical Examination Findings
General examination of both cats did not reveal abnormalities.

Diagnosis
Fear-induced aggression was diagnosed. Diagnostic criteria included the postures adopted by both cats during aggression and the lack of seeking the other cat for aggressive encounters. The postures described were indicative of defensive threat and incorporated a combination of offensive and defensive signals, the latter being more intense in cat 2. Fear-induced aggression is the most common diagnosis when 2 cats in a household that previously had coexisted well become suddenly aggressive toward each other. Although the origin of the problem is often difficult to find, fear-induced aggression is usually treated successfully. However, considering possible differential diagnoses before starting treatment is important.

Aggressive behavior between cats has been divided into fear-induced or defensive aggression, territorial aggression, intermale aggression, sex-related aggression, and redirected aggression. More recently, 3 further types of aggression have been included: asocial, dispersion, and pariah. In this case, the duration of the problem, its sudden onset, and the previous behavior of both cats allowed us to eliminate redirected, asocial, pariah, intermale, and dispersion aggression as possible diagnoses.

The referring veterinarian had considered the problem to be sex-related aggression. However, this type of aggression is associated with mating; does not involve defensive postures by the male, as observed in cat 1; and is solely directed toward the female's neck.

Territorial aggression was a possible differential diagnosis, with a poorer prognosis. However, territorial aggression between cats in a household usually develops gradually. Furthermore, only 1 cat is

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the aggressor and therefore, defensive postures are not displayed by both cats, as in the case reported here. In addition, the aggressor seeks out and chases the victim.

**Treatment**

The owner was advised to gradually discontinue treatment of cat 1 with megestrol acetate. Progestins may be useful to treat behavioral problems related to male sex hormones, such as territorial marking, sex-related aggression, or intermale aggression. However, fear-induced aggression is not linked to androgens and therefore, is not likely to be successfully treated with progestins. Furthermore, megestrol acetate has serious secondary effects in cats.

To treat fear-induced aggression, both cats must become reacclimated to each other, without either of them becoming afraid or aggressive. The owner was advised to keep both cats separated in different rooms, except during treatment procedures. Treatment involved keeping cat 2 in a large cage for about 2 hours each day, in a room frequently visited by cat 1. Both cats were fed during treatment sessions, supervised by the owner.

**Follow-up**

After 3 days of treatment, the owner reported that both cats were sniffing at each other through the cage bars, without showing signs of fear or aggression. Using the same procedure, but without the cage (i.e., cats kept in different rooms, except for a short period each day during which they were fed together) was then suggested. After 4 more days, the cats groomed each other, and the problem was considered to be solved. Both cats were allowed to move freely around the house and interact with each other throughout the day. Three months later, their behavior was normal, and further aggression has not been reported.

**References**