

## **Diagnosis and Treatment Methods in Separation Anxiety in Dogs**

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**Abstract.** Dogs have been one of the closest domesticated animals to men who live with them, and in the majority of cases bond in such a way that they represent another family member, reason why their behavior affects the common welfare directly. Changes in dog's behavior represent a serious problem that threatens not only the physical integrity and general wellbeing of the dog but also that of the people around it. One of the most frequently behavior disorder in dogs is separation anxiety. For this reason our study is focused on resolving separation anxiety problems and therefore indirectly helping in enhancing the family's life quality and even the community's; likewise to reduce the pet's home exclusion risk, since the majority of dog behavior problems usually lead into the dog's sacrifice or abandonment. We study a group of 60 dogs from different races, ages and genders. In the diagnose of separation anxiety we used clinical, semiological methods and also paraclinical test, but the most important and relevant were the anamnestic dates that the owners provide us. To correct or minimize behavior disorders consequence of anxiety we used behavior modification techniques (playing and training them) and psychotropic drugs, an selective serotonin reuptake inhibitors (Prozac and Fluoxin).

**Key words.** Separation anxiety, behavior modification techniques, psychotropic drugs.

### INTRODUCTION

Because domestic dogs usually consider the human family to be their social group, they become bonded to family members (Serpell, 1996; O. Farell, 1997; Triebbacher et al., 1998; Previde et al. 2006). Clinical separation anxiety occurs when dogs exhibits inappropriate behaviors specifically caused by their owners leaving them alone or when the dog does not have acces to them (Sherman and Mills, 2008). Usualy dogs with separation anxiety have been assume to have an excess of attachment toward their owners. Behavioral signs include intensive destructiveness, vocalization, elimination, anorexia, salivation, attemps of escape, behavioral depresion, etc (Horwitz, 2008).

Signs associated with separation anxiety can erode the human–animal bond. Because of its financial and emotional cost, unresolved separation anxiety is a common cause of abandonment to animal shelters (Sherman, 2008). Therefore, at the first sign or client complaint, veterinarians should initiate treatment. Early experiences as a puppy play a critical role in subsequent canine behavior.

## MATERIALS AND METHODS

We tested an scratchy group of 60 dogs from a pension nearby Cluj-Napoca, from different races, ages and genders. The animals behavior was tested on a varying period of time from 2 days to 2 month.

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The pension, where we have done ours studies have an capacity of 30 places, with 10 places inside and 20 outside. Each dog wich stays outside have his own space of 5 m<sup>2</sup> , and those who stays inside have a space of 3 m<sup>2</sup> . Beside the private space the pension have a 3 courtyards with surfaces of 100 m<sup>2</sup> each, where the dogs can play and socilize with the others. First of all we tested the dos for be sure they don` t have others deaseases that can determinate the animal to have behavioral disorder.

For reaching our purpose we have firs established the stages of the work, wich helped us to be more organised and to interpretate the results more easy. The principal stages of the work were:

1. establishing the anamnesis, wich helped us to identify the anxiety separation syndrome suspect dogs;
2. identifying of the factors wich can cause the isolation stress;
3. monitoring the health condition and the behavioral changes of the dogs from the pension;
4. monitoring the physiological constants to the dogs with behavioral problems;
5. establishing the severity point of the anxiety separation according to the symtoms that every individual dog presented;
6. marking down the data and make a statistical interpretation of them;
7. seting out the conclusion and proposing some management methods for anxiety separation.

## RESULTS AND DISCUSSIONS

Separation anxiety is a behavioral syndrome of dogs characterized by signs of distress when the affected dog is left alone or is separated from the person or people to whom it is attached. Dogs may exhibit the clinical signs of anxiety separation immediately after he is left alone, and get to a critical point within 30 minutes of owner departure. The anxiety can be exacerbate by the apparition of other events that inspires him fear, such as a storm with thunders.

Differential diagnosis, must be made when the clinical signs persist even when the owner is back home, so we must eliminate others disease (Aujeszky disease, Carre disease, rabies, etc.) or behavioral problems that can determinate such manifestation.

Clinical observation sheet - during accommodation of the dogs in the pension, we have made to each of them an individual clinical observation sheet, in which we note health condition, period of accommodation, the diagnosis and the treatment that we used. At the end the data was used for the statistical interpretation. Among the most frequently symptoms were diarrhea and vomiting, especially immediately after the departure of the owner. Was recorded also, loss of appetite and loss of weight.

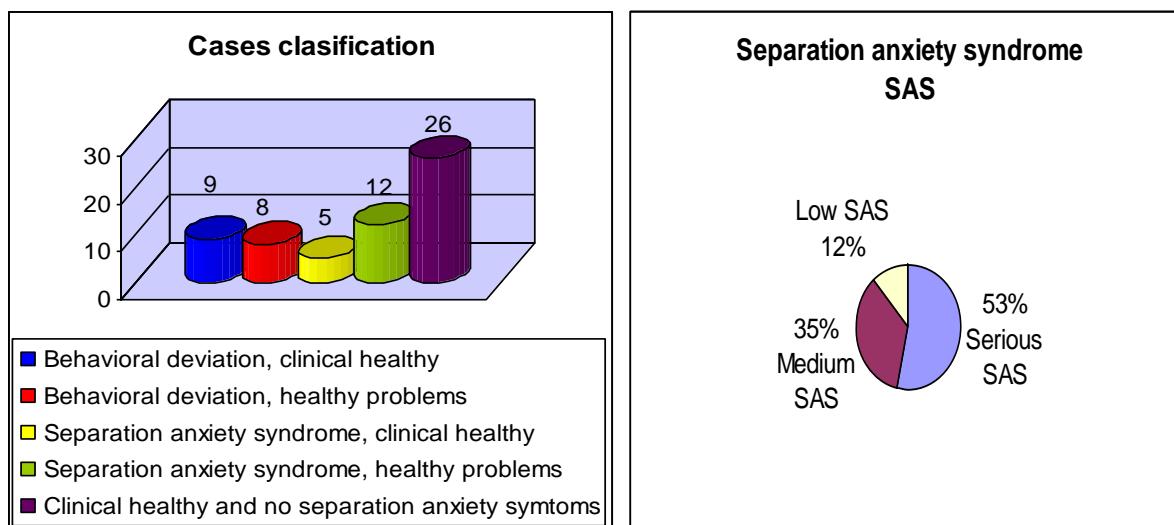
We systematized the data of the clinical observation sheet and we considered only the cases of dogs which were suspects of anxiety separation. So from 60 dogs used for the study:

- 9 presented behavioral deviation, but others than anxiety separation and they were clinical healthy ;
- 8 presented behavioral deviation, but others than anxiety separation, and also health problems ;
- 5 cases presented anxiety separation syndrome, without health problems ;
- 12 cases presented anxiety separation syndrome and also health problems.
- 26 they were clinical healthy and no anxiety symptoms.

We could identify 17 dogs with separation anxiety syndrome in different stages of manifestation, according the score that they obtain in function of the clinical symptoms. These exemplars were classified in three groups of severity so:

- group I – 9 dogs with low separation anxiety syndrome, having an score of 5 to 10 points and representing 52.9% from all the cases that presented separation anxiety ;
- group II – 6 dogs with medium separation anxiety syndrome, having a score of 11 to 15 points and representing 35.2 % from all the cases that presented separation anxiety ;
- group III – 2 dogs with serious separation anxiety syndrome, having a score of 16 to 20 points and representing 11.8 % from all the cases that presented separation anxiety.

The cases diagnosed with separation anxiety syndrome presented: 7 cases- destructiveness; 10 cases – vocalization; 10 cases – loss of appetite or anorexia, of which 8 presented also vomiting o diarrhea; 2 cases – excess licking of the bars, 6 cases- hyperactivity. All the anxious dogs presented an exaggerated happiness to the owner returning



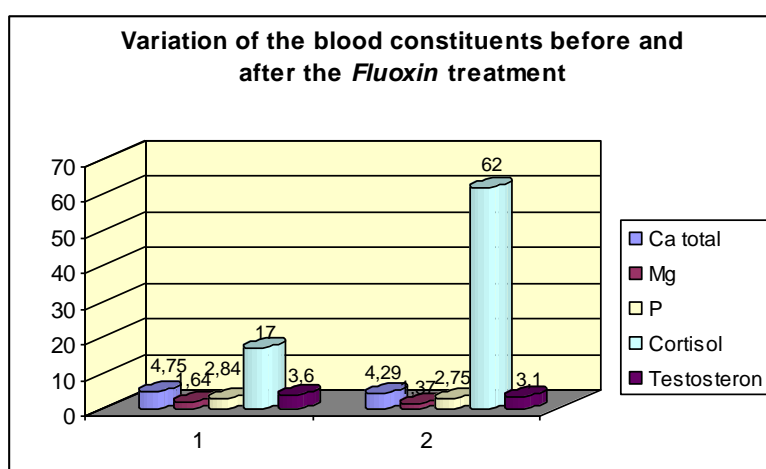
**Treatment:** The best tools to correct or minimize behavior disorders consequence of anxiety are behavior modification techniques and the use of psychotropic drugs. For the cases that presented low or medium separation anxiety, we have tried training methods, games and sport for reduction of hyperactivity. To those cases with serious separation anxiety, and other 3 cases which did not respond to training and playing techniques, we used an medication treatment.

To achieve our purpose we established some objectives: identification of the best therapeutic methods and timing; establishment of the drug intervention represented by Prozac and Fluoxin; determination of cortisol, testosterone, complete blood counts and some biochemical parameters of the blood, before and after the medication therapy, monitoring of the physiological constants and the behavior after the drug administration.

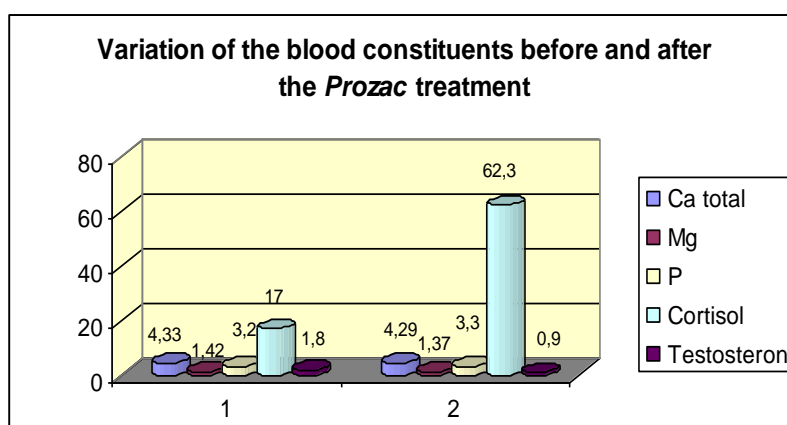
As a drug therapy we used an selective serotonin reuptake inhibitors, *fluoxetina*, as two medicinal products: Prozac, product by S.C. Lilly S.A., Spain and Fluoxin, Romanian product, both having 20 mg of active substance/ tablet. The presentation is different, first is product in tablet form and the second in capsule form.

The animals were separated in two lots, 2 cases was treated with Fluoxin 0.5 mg/kg/day, and the other 3 cases was treated with Prozac 0.5 mg/kg/day, in the morning, then 1 mg/kg/day as the prospect recommendation. The Prozac tablet and the content of Fluoxin capsule was diluted in 10 ml water, so at 1 ml water correspond 2mg of active substance.

First group treated with Fluoxin- we observed that most of the blood constituents suffered modification in the sense of decreasing, except the cortisol, whose value exceeded the maximum.



Second group treated with Prozac - we observed that most of the blood constituents suffered modification in the sense of decreasing, except the cortisol, whose value exceeded the maximum.



## CONCLUSIONS

In all this time we have observed and noted the individual organism constants and we took blood for the analyses for each animal.

- Separation anxiety syndrome represents a disorder with a multifactorial etiology, therefore this affection can't be treated just on medication, but an major role comes to prevention and behavioral correction. The most used methods of correction are training and playing with the anxious dog, trying to obtain a behavior modification;
- Separation anxiety seems to be quite prevalent to the animals that suffered an affective trauma in childhood, who were adopted to soon from the mother, so we recommend that the adoption should be made in around the age of 3 weeks, even at 6-7 weeks, but after 12 weeks its possible the separation anxiety appearance;
- The owners must be counseled that the behavior is anxiety based and not mischievous, and they have to know what is separation anxiety for involving in its prophylaxis and treatment if needed;
- The puppies of 3-6 month must be left alone gradually for shorts periods of time, in a space that can allow the owner to supervise the reaction of the dog;
- If needed we recommend the medication therapy with smaller doses at the beginning and than increased gradually until the wanted results appear;
- Based on the results we can say that the therapy with Prozac and Fluoxin have no second reaction, so we recommend the use of it.

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