

Use of L-theanine tablets and behavior modification for treatment of phobias in dogs: a preliminary study

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INTRODUCTION

Phobia is an excessive fear response to particular noises, like thunderstorms, fireworks, motorbikes or emergency sirens, that is disproportionate to danger presented (Overall 2004). Phobic dogs generally show behaviors like panting, pacing, trembling, remaining near the caregiver, hiding, excessive of salivation and vocalization, destructiveness, inappropriate eliminations, self-traumas and also aggressiveness (Overall et al 2001; Dreschel & Granger 2005).. In fear responses, the central role is played by the noradrenergic system and in particularly by locus ceruleus and its transmitters (Dreschel & Granger 2005).

AIM

To determine the use of ANXITANE® (L-theanine) Chewable Tablets as support during the treatment of specific phobias in dogs. L-theanine produces a relaxing effect, a regulation of blood pressure and improvement of learning ability (Yokogoshi H et al 1998; Juneja et al 1999; Yokogoshi H & Terashima T 2000).



MATERIALS AND METHODS

Group A: 4 phobic dogs with behavioral treatment (desensitization and counter-conditioning) and ANXITANE Tablets.

Group B: 3 phobic dogs with behavioral treatment.

Group C: 4 dogs without behavioral problems (Crowell-Davis et al 2003).

All dogs were submitted to a behavioral examination and blood sample to evaluate the cortisol level (Cavallone et al 2001, Berteselli et al 2006, 2007). The behavioral therapy was conducted at home with an audio simulation. Dogs responses were evaluated by a specific card in which the most frequent phobia signs were rated on a 1-5 score based on severity seen during the behavioral therapy (1: no manifestations to 5: very severe). After two months there was a second behavioral examination and blood sample. Friedman test was used for behavioral data and Wilcoxon test for cortisol values. The owners had to report whether they believe their dogs' phobic manifestation during the sessions was worse (0), unchanged (1), somewhat better (2), substantially better (3) or resolved (4) at 31 and 62 days of treatment. These data were analyzed by Wilcoxon Test (Beerda et al 1996, 1997; Dreschel & Granger 2005, Berteselli et al 2006, 2007)



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CONCLUSION AND DISCUSSION

The card applied is a validated scale to evaluate the modification of phobia signs. There was a significant improvement in phobia manifestations in all dogs ($P < 0.01$) (Graph 1). Considering the three periods of treatment of 2 groups (the first, the middle and the end of treatment), there was a statistically significant score decrease in group A ($P < 0.05$) and only a tendency in group B ($P < 0.10$) (Graph 2). In particular, dogs of group A showed a significant decrease of the following behaviors: hiding, attention seeking ($P < 0.05$). Pacing showed a decreasing tendency ($P < 0.10$) (Graph 3-4-5). Moreover, the owners of group A noted a more evident behavioral improve-

ment than group B, even though not significant (Graph 6). Blood cortisol levels did not differ in group A and B and its values were close to the ones of control dogs and basal range. Dogs' haematic parameters were in physiological range and there weren't side effects. In conclusion, ANXITANE Tablets may be used as a valid support during phobic treatment (desensitization and counter conditioning). It can be considered an alternative substance to be administered in association with behavioral treatment, which remains essential for these problems. This is a preliminary study and the sample is very small. Further investigations are necessary.

