

Preliminary evaluation of herbal drug Anxocare in management of dominance aggression in dogs

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It is believed that dominance aggression in dogs is strongly inherited and is escalated by hormonal factors, composition of household, behaviour of owners and owners attitudes (O'Farrel, 1992). However studies in primates and laboratory animals indicated that serotonin can modulate aggression behaviour and reduced level of serotonin in cerebrospinal fluid (CSF) and impaired impulse control has been reported in aggressive dogs (Reisner *et al.*, 1996). In this study Anxocare (The Himalaya Drug Company, Bangalore) was evaluated in cases of owner directed dominance aggression.

Fifteen dogs of various breeds like Doberman (8), Pomeranian (3) and non-descript (4) ranging from 1-5 years of age of either sex were enrolled in the study. All the animals were subjected to administration of Anxocare tablets at a dose of 3 tablets, twice a day for 15 days. Dominance aggression was diagnosed in these dogs by means of detailed behavioural interview/questionnaire (O'Farrel, 1992) and analysis referring to the chart giving 30 situations in which a dog may have displayed aggressive behaviour (Dodman *et al.*, 1996).

Owners were instructed to record the aggressive responses of the dogs daily referring to a canine overt aggression chart during the study period. Out of the 30 situations, only 10 common situations (common to all the dogs) in which dog showed aggression were used for analysis and evaluation of the Anxocare. At the end of 15 days period, the total aggression scores were calculated as also individual scores and analysed separately. For each of the situations listed in the aggression chart, the response was recorded as Growl (score 1), Lip lift (score 2), Snap (score 3) and Bite (score 4). Owners were contacted at regular intervals to solicit information about potential problems and ensure that medication is being given on a regular basis and to check that owners were not having difficulties with completion of the responses daily. The response of individual dog to the 10 selected situations have been tabulated at regular interval.

The scores were evaluated for set of situations including disturbing the resting dog/physically wake dog up, visually threatening the dog, news paper or hand, reaching for or grabbing the dog by collar/restraining the animal by chain, handling dog's feet, staring at dog/eye contact, touching dog's food while eating, patting/hugging, making dog respond to command, grooming and walking past dog while eating.

It was evident from the study that administration of Anxocare resulted in a significant reduction of aggressive responses to the extent of 11.97%, 23.95% and 34.5% after 5, 10 and 15 days respectively after the treatment. No adverse effects were encountered during the study except two dogs, which had reduced feed intake.

Aggression directed towards owners is a common complaint and has been reported to be most frequent than territorial, fear or competitive aggression. Because it is seen more frequently, more is known about it than about some other types of aggression.

Relatively mild aggression may be treated with a combination of prevention of injury, increased structure in the home, and safe control of the dog, including obedience training to reward the dog for deference to the owner. Agonists and antagonists, selective for different serotonin receptors have been developed to treat aggression problems in dogs. However these drugs on a long-term use carry high risks of developing undesirable side effects and habituation (Dodman *et al.*, 1996, O'Farrel, 1992).

The study suggests that aggression may be reduced by Anxocare drug therapy, which appears to modify brain neurochemistry probably by altering the serotonin levels. Moreover the unique combination of ingredients present in the Anxocare has been proven effective in various behavioural disorders, anxiety and mental irritability in man. Anxocare being a herbal drug appears to be safe, cost effective and promising alternative to conventional drugs for the management of aggression in dogs. Such treatment is not a cure, however, it be paired with a lifelong, systematic programme of safety and control in the home. Further studies on a larger scale pertaining to various types of behavioural

Composition of Anxocare	
Bacopa monnieri	136 mg
Centella asiatica	70 mg
Withania somnifera	52 mg
Evolvus alsinoides	50 mg
Prunus amygdalus	50 mg
Acorus calamus	42 mg
Terminalia chebula	36 mg
Embilica officinalis	36 mg
Tinospora cordifolia	36 mg
Celastrus paniculates	32 mg
Oroxylum indicum	32 mg
Nardostachys jatamansi	52 mg
Valeriana wallichii	5 mg
Embilica ribes	50 mg

problems need to be evaluated.

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References

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