

CAN WE BREATHE EASY ABOUT BRACHYCEPHALIC OBSTRUCTIVE AIRWAY SYNDROM? EFFECTS OF SEVERITY ON CANINE PLAY, EXERCISE AND FEEDING BEHAVIOUR

MONICA ANGHAEI*¹, CHARLOTTE C. BURN¹

¹The Royal Veterinary College, Hawkshead Lane, North Mymms, Hatfield, AL9 7TA, UK

*Corresponding author: MONICA ANGHAEI (manghaei1@rvc.ac.uk)

Brachycephalic Obstructive Airway Syndrome (BOAS) forms a continuum from mild to severe. It is most common in dogs with brachycephalic conformations and as such, this genetic predisposition exposes dogs to a series of respiratory complications (Njikam Nsangou et al., 2009).

BOAS impairs canine quality of life when severe (Roedler et al., 2013), but little is known about its effects on key positive aspects of behaviour when less severe.

It is hypothesised that beyond certain severities, BOAS will

- i. reduce ability to exercise and haemoglobin oxygenation following walking,
- ii. reduce playfulness, and
- iii. reduce appetite and increase difficulty eating.

Quantitative behavioural observations were conducted on 47 brachycephalic dogs. Behaviour during (i) a 6-minute walk test, (ii) a play test (iii) and an appetite test was recorded. BOAS severity was measured using a previously validated Owner Reported Breathing (ORB) score: 0 = unaffected; 40 = maximum severity (Packer et al., 2012). Increasing BOAS severity tended (non-significantly) to decrease oxygenation after exercise, tendency to increase time to eat per food pellet, and decrease energetic play behaviours e.g. Play Bow.

An owner questionnaire conducted on 2265 brachycephalic dogs indicated the severity scores for mild BOAS are 8-15, moderate BOAS are 16-26 and severe are 27-40 ORB score, with owner-perceived canine welfare significantly declining as severity increased.

Mild BOAS has less effect on canine welfare than sometimes assumed. However, moderate BOAS affects at least two welfare domains tested and severe BOAS negatively impacts exercise, appetite and play. This information will help make recommendations for owners, breeders and veterinarians on appropriate treatment to maximise welfare in affected dogs.

Keywords: BRACHYCEPHALIC; RESPIRATORY; SEVERITY; WELFARE

References

- NIJIKAM NSANGOU, I., HUAULT, M., PIRSON, V. & DETILLEUX, J. 2009. The influence of phylogenetic origin on the occurrence of brachycephalic airway obstruction syndrome in a large retrospective study. *International journal of applied research in veterinary medicine*, 7, 138-143.

PACKER, R., HENDRICKS, A. & BURN, C. 2012. Do dog owners perceive the clinical signs related to conformational inherited disorders as 'normal' for the breed? A potential constraint to improving canine welfare. *Animal Welfare-The UFAW Journal*, 21, 81.

ROEDLER, F. S., POHL, S. & OECHTERING, G. U. 2013. How does severe brachycephaly affect dog's lives? Results of a structured preoperative owner questionnaire. *The Veterinary Journal*, 198, 606-610.