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www.ufaw.org.uk

Animal Welfare 2021, 30: 441-448
ISSN 0962-7286
doi: 10.7120/09627286.30.4.007

A follow-up study of exercise test results and severity of brachycephalic obstructive airway syndrome signs in brachycephalic dogs

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Abstract

To promote successful breeding against brachycephalic obstructive airway syndrome (BOAS), it is important to assess how BOAS signs progress during young adulthood and how evaluation age and ageing affect the results of chosen breeding selection tools. The aims of this study were to assess how veterinary-assessed and owner-reported BOAS signs and exercise test results change when dogs age. Eight English Bulldogs, 25 French Bulldogs, and 31 Pugs that had undergone previous evaluation were re-examined 2–3 years later. An owner questionnaire regarding BOAS signs, a veterinary assessment of BOAS severity, and exercise, ie walk tests were re-performed. In Pugs, both 6-min walking distance and 1,000-m time worsened and the initial evaluation age had a significant effect on the 1,000-m time. No significant changes were seen in the results of the French Bulldogs but a negative effect on the 1,000-m time was seen with weight gain. Exercise test statistics were not performed with regard to English Bulldogs due to low sample size. The veterinary-assessed BOAS severity class remained the same in the majority of dogs and the BOAS grade worsened mostly in those dogs that were initially evaluated at less than two years of age. Most owners reported no major changes in BOAS severity. BOAS grading and walk tests were easy to repeat and results remained relatively constant in dogs initially evaluated at over two years of age, supporting the use of these breeding selection tools. However, further, large-scale offspring studies are still needed.

Keywords: *animal welfare, brachycephalic obstructive airway syndrome, English Bulldog, French Bulldog, Pug, walk test*