Carlos A<sup>1</sup> Pereira H<sup>2</sup> Pereira A<sup>3</sup> Oliveira M<sup>4</sup> Ferreira D<sup>5</sup>



## THE PREVALENCE OF ABERRANT NASAL TURBINATES AND NASAL SEPTUM DEVIATION IN A FRENCH BULLDOG POPULATION UN-DERGOING COMPUTED TOMOGRAPHY FOR DISEASE OTHER THAN BRACHYCEPHALIC OBSTRUCTIVE AIRWAY SYNDROME.

The presence of nasal septum deviation and aberrant turbinates alters the normal nasal airflow. The relevance of nasal septum deviation in the brachycephalic obstructive airway syndrome (BOAS) is still unclear but, together with other anatomical alterations such as aberrant turbinates, may alter the normal nasal airflow, increasing upper airway resistance.

The present retrospective study reports the prevalence of rostral (RAT) and caudal (CAT) aberrant turbinates, and nasal septum deviation (NSD) in a population of 45 French Bulldogs submitted to computed tomography to the head for reasons unrelated with BOAS.

Forty-five French Bulldogs were studied and NSD, RAT, and CAT were present in 69%, 44%, and 64% of the dogs, respectively. Animals weighing 11 - 14 kg are more likely to have NSD than ani-

mals weighing 8 - 11 kg. Animals weighing 8 - 11 kg are more likely to present CAT, than animals weighing 11 - 14 kg, with a marginal significance. No correlations were observed between body weight and RAT, nor between body weight and gender or reproductive status.

The RAT may play a more important role in developing severe BOAS than NSD or CAT. The present observation of a higher frequency of NSD affected French Bulldogs in our study, when compared to previous published studies, suggests that NSD represents a minor effect in BOAS within the entire bundle of anatomical aberrations present in the skull of French Bulldogs. The main causes of BOAS should be clearly identified for each individual French Bulldog before deciding on a complex multilevel surgical approach, and breeding of brachycephalic dogs with accentuated brachycephalic characteristics should be prohibited.

<sup>1.</sup> Clínica Veterinária dos Milagres, R. D.ª Teodolinda 86, 2415-020 Milagres, Leiria, Portugal; (CLICK HERE); +351915969631

Hospital Escolar da Faculdade de Medicina Veterinária - Universidade de Lisboa, Av. Universidade Técnica, 1300-477 Lisboa, Portugal
MED - Mediterranean Institute for Agriculture, Environment and Development & CHANGE - Global Change and Sustainability Institute, Departamento de Zootecnia, Universidade de Évora, Escola de Ciências e Tecnologia, Universidade de Évora, Pólo da Mitra, Ap. 94, 7002-594 Valverde, Évora, Portugal

<sup>4.</sup> CHRC – Comprehensive Health Research Centre, Departamento de Medicina Veterinária, Escola de Ciências e Tecnologia, Universidade de Évora, Pólo da Mitra, Ap. 94, 7002-594 Valverde, Évora, Portugal

<sup>5.</sup> CHRC – Comprehensive Health Research Centre, Departamento de Medicina Veterinária, Escola de Ciências e Tecnologia, Universidade de Évora, Pólo da Mitra, Ap. 94, 7002-594 Valverde, Évora, Portugal