**STANDARDIZED CHARACTERIZATION OF THORACIC HIGH-RESOLUTION COMPUTED TOMOGRAPHIC FINDINGS IN WEST HIGHLAND WHITE TERRIER WITH CANINE IDIOPATHIC PULMONARY FIBROSIS AND COMPARISON BETWEEN SEDATED AND ANESTHETIZED EXAMINATIONS**

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Canine idiopathic pulmonary fibrosis (CIPF) is a progressive interstitial lung disease mainly affecting West Highland white terriers (WHWTs). This study was intended to (1) describe thoracic high-resolution computed tomography (T-HRCT) findings obtained in CIPF dogs under general anesthesia (GA) using the glossary of the Fleischner Society and (2) compare images obtained under GA (T-HRCTGA) with those obtained under sedation (S) (T-HRCTS). T-HRCT images from 11 WHWTs with CIPF and 9 control WHWTs were retrospectively reviewed by three observers in consensus. Specific T-HRCT features were assessed and graded for each lung lobe (0=absence, 1=mild, 2=moderate and 3=severe). A global score was then calculated. The Khi² test with the threshold 5% was used for the statistical analysis. Ground glass opacity (GGO) was observed in all CIPF WHWTs and in 5/9 of controls (P=0.013). In controls, GGO was mild and localised mainly in cranial lobes. In CIPF WHWTs, GGO was mild, moderate or severe in 2, 4 and 5 dogs respectively, without lobe predilection. Consolidation was observed in 5/11 CIPF WHWTs but not in controls (P=0.020) and was mild (3/5) to moderate (2/5). A mosaic pattern, suggestive of air trapping, was noticed in 8/11 CIPF WHWTs but not in controls (P=0.001) and was mild, moderate or severe in 3, 2 and 3 WHWTs respectively, without lobe predilection. Nodules were present in 3/11 CIPF WHWTs but not in controls. Reticulation, subpleural bands and parenchymal bands were noticed in 1, 1, and 3/11 CIPF WHWTs respectively. Honeycombing, emphysema, pleural effusion and pleural thickening were never observed. Bronchial wall thickening and mild bronchiectasis were present in 6/11 and 3/11 CIPF WHWTs respectively but not in controls (P=0.008 and P=0.09). The overall T-HRCTS quality was good in 10/17 examinations compared with 16/20 for T-HRCTGA (P=0.160). The presence of motion artefacts was higher for T-HRCTS (P<0.001), but were most frequently graded as mild (P<0.001). T-HRCTS allowed identification of a mosaic pattern in 2 additional CIPF WHWTs, while consolidation could not be identified in 2 others. There was no difference in identification or gradation for the other features between T-HRCTGA and T-HRCTS. In conclusion, GGO, consolidation, mosaic pattern and bronchial wall thickening are the main T-HRCT features of CIPF in WHWTs. Honeycombing, the major feature of IPF in humans, was never observed, which suggests a different pathophysiology between the two entities. T-HRCTS images are in accordance with T-HRCTGA and can be used for CIPF diagnosis.