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Does thoracic humanoid view help interpret cranial lung fields ?

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Radiograph is a non-invasive and essential step and useful in the diagnosis and management of dogs with heart and lung diseases. In radiographic study of small animal clinical practices, routine thoracic radiographs consist of lateral view and either the ventrodorsal (VD) or dorsoventral view, and each view has its characteristic depending on position differencess. Humanoid radiograph is one of the thoracic radiograph that is taken in dorsal recumbency with pulling forelimbs down. To figure out and take more informative images, we need to have analytical understanding about humanoid positioning and its effects in interpreting the results on the images. The purposes of this study are to understand and identify the effect of humanoid positioning and to report its possible clinical usefulness in thoracic radiograph of small animal clinical practice. Under the general anesthesia and the state of inflation of lung with identical 18mmHg pressure, humanoid and routine VD view were taken in healthy 5 Beagle dogs, and we compared and analyzed all views to figure out differences and characteristics resulting from positioning. Also, each horizontal view with the dogs in humanoid and VD positions was taken. Then, general appearance of thoracic structures, including diaphragmatic or cardiac appearance, was assessed, and several landmarks were set up and compared between routine VD and humanoid view. We found that humanoid position distorts the canine thorax and is not suitable for interpretation of canine thorax, alone. However, it provided the better diagnostic quality of cranial lung fields without superimposition of scapulas and its musculatures. Therefore, we concluded that humanoid view could support routine VD view to interpret cranial lung fields and accessory lung lobe lesion in canine thorax.

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