

Comparison of dorsoventral erect and ventrodorsal supine radiographic views for the evaluation of intracoelomic organs evaluation in clinically normal African grey parrots (*Psittacus erithacus*)

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Abstract: Standard positioning for radiographic evaluation may require sedation and can be deleterious in critically ill birds. A prospective cross-over study was performed in 15 clinically normal African grey parrots (*Psittacus erithacus*) to describe an alternative unrestrained radiographic view. Whole-body radiographs were obtained in unrestrained dorsoventral erect (DVE) views and in anesthetized ventrodorsal supine (VDS) views. Visualization of various anatomic items in each view was scored by three observers. The air sacs surface area and the width of the heart, liver, thorax and cardio-hepatic waist were measured in DVE and VDS views. Measurements were obtained by three observers, and one observer repeated the measurements twice. Intraobserver and interobserver agreement were assessed. Major rotation of the coelom and superimposition of the limbs over the coelom were respectively observed in 4/15 and 15/15 DVE views and not observed in VDS views. The evaluation of the respiratory tract structures was considered limited in DVE views compared to VDS views and the air sacs surface area was significantly smaller. The proventriculus and ventriculus were more visible in DVE view. The visualization of the heart was not significantly different between the two views. The absolute measures of heart, liver and cardio-hepatic waist width were significantly larger in the DVE view compared to the VDS view. Moderate intraobserver and interobserver agreement was observed in the evaluation between the two views. In conclusion, the DVE view could be adequate to assess the heart and the upper digestive tract. This positioning is likely to provide clinically relevant information for cases when general anesthesia or dorsal recumbency is contraindicated.