



RADIOGRAPHIC EVALUATION OF FELINE ABDOMINAL ORGANS IN DIFFERENT RADIOGRAPHIC PROJECTIONS

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Introduction

Two orthogonal radiographic projections, right or left lateral recumbency and a ventrodorsal (VD) are often used as a first line imaging modality for abdominal diseases.

In dogs, the dorsoventral (DV) projection of the abdomen is not considered reliable because of crowding of the abdominal organs, but this has not been evaluated in cats.

Aim

We hypothesised that in cats the DV projection would provide similar information to the VD.

Material and methods

Prospective descriptive study. Right lateral recumbent (RLR), left lateral recumbent (LLR), VD and DV feline abdominal radiographs were independently reviewed by two board-certified radiologists blinded to the cat's position. The visibility, location and size of the major abdominal organs were recorded. Overall subjective preference for RLR or LLR and DV or VD was also noted. The data were statistically analysed.

Results

65 cats met the inclusion criteria. Statistical analysis showed no significant difference in the visibility of individual structures between DV and VD views or RLR and LLR, except for the pylorus (significantly more visible in the VD than the DV view) (Figure 1), and the tail of the spleen (more visible in the RLR than the LLR view) (Figure 2). Visibility of the abdominal organs improved with increasing intra-abdominal fat (Figure 3). The agreement of the reviewers on their preferences for the RLR vs LLR views, and for the DV vs VD views, was good.

Conclusion

Comparison between the different projections of the abdomen shows that they provide similar anatomical information and generally can be used interchangeably. However, the DV and the RLR projections were preferred overall and the use of the DV may be simpler and easier than the VD, improves image quality by providing straighter radiographs and reduces the stress of the cat.

Acknowledgements

The authors would like to thank all the AHT's imaging team, in particular Naomi Kirk, for the acquisition of the radiographic studies and all the AHT clinicians for recruitment of the cases.

Ethical Approval and Informed Consent statements

The study was approved by the Clinical Research and Ethical Approval Committee of our Institution and owners of all cats provided written consent.

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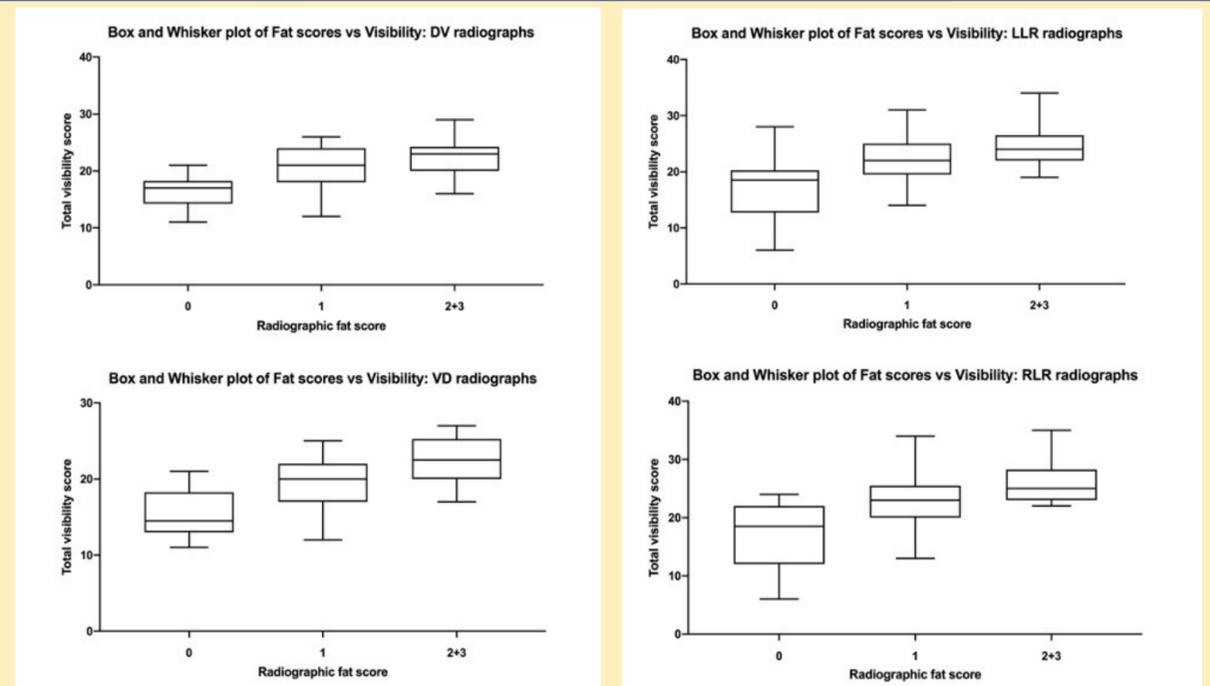


Figure 3



Figure 1



Figure 2