

Quantitative Comparison of Computed Radiography and Film Radiography in Detection of Peritoneal Effusions in dogs

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Introduction: The aim of this report is to quantitatively compare computed radiography (CR) and screen-film radiography (SFR) in the detection of peritoneal effusion in dogs.

Methods: Normal four beagle dogs and one maltese dog underwent injection of normal saline in the right peritoneal space. Injection dose was 0 ml/kg, 3 ml/kg, 6 ml/kg, 8 ml/kg, 12 ml/kg, 15 ml/kg and 18 ml/kg. Each five CR and 5 SFR abdominal images were obtained. Three radiologists and 3 non-radiologists were blindly viewed the image to evaluate yes-no score. A dichotomous yes-no score for the presence of peritoneal effusion was used to calculate the volume detection threshold (VDT), defined as the fluid volume at which 50% of the peritoneal effusion can be detected.

Results: Intraobserver VDT values for CR and SER were non significantly different.

Conclusion: CR is as accurate as SFR in the detection of peritoneal effusion in this quantitative dogs.

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