

Review of: "Dose Reduction in Medical Radiography: Advancing Veterinary Diagnostic Solutions"

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Potential competing interests: No potential competing interests to declare.

Authors investigated the photon loss on the anti-scatter lead grid and used a linear array X-ray detector to get rid of it. They observed an increase in photon loss at the reference flat-panel detector system caused by the grid when the thickness was increased in phantom tests. They realized this phenomenon would be an advantage for veterinary radiography. They also observed the magnification capability of the linear array detector.

In veterinary radiography, there are difficulties in diagnosing equine and cattle due to tissue thickness, except for their extremities, with flat-panel detectors and a grid. This study may lead to the creation of new veterinary diagnostic equipment with a linear array detector. The X-ray doses to diagnose hinnies in this research are respectively low, and the claim of the researchers that equine and cattle can also be diagnosed is a positive analogy.

The direct magnification capability can also be an advantage in diagnosing tiny fractures and lesions of animals. The scan procedure should be short and silent to ensure that the animal to be imaged is not startled and remains still during imaging. Moreover, a ceiling-suspended mechanical design would be more practical in veterinary use. This is successful multidisciplinary research from medical to veterinary X-ray diagnostics.