

radiographic system, the total phantom radiation dose with FPD digital radiographic system were increased by 2.3% for completing the coronary angiography procedure.

Conclusions This study demonstrates that, compared to II-CCD digital radiographic system, the phantom radiation dose and dose rates with FPD digital radiographic system were reduced for fluoroscopy during coronary angiography, but increased for digital cineangiography. The same increase was also observed for the total phantom radiation dose with FPD digital radiographic system. These findings suggest that, compared with II-CCD digital radiographic system, FPD digital radiographic system did not inherently reduce the radiation dose, although FPD digital radiographic system possess good detective quantum efficiency.

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COMPARISON OF RADIATION DOSE FOR TWO DIGITAL RADIOGRAPHIC SYSTEM IN CORONARY ANGIOGRAPHY PROCEDURE

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Objectives To evaluate the radiation dose to patients using flat-panel detector (FPD) and image intensifier charge-coupled device (II-CCD) digital radiographic system in coronary angiography procedure.

Methods Radiation dose and dose rate with FPD and II-CCD digital radiographic system in coronary angiography procedure were measured using a phantom and radiation detector. Measurements were carried out for three times with each digital radiographic system, and the arithmetic were calculated.

Results For fluoroscopy, the phantom radiation dose with FPD digital radiographic system was reduced by 5.6% compared to II-CCD digital radiographic system. However, for digital cineangiography, the phantom radiation dose with FPD digital radiographic system was increased by 7.8%. Compared to II-CCD digital