Unlike CT, standard X-rays don't detect the majority of pelvic injuries, study suggests

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Computed tomography (CT) scans are superior to standard radiography (X-rays) for the detection of pelvic fractures, according to a study to be presented at the ARRS 2010 Annual Meeting in San Diego, CA. CT scanning combines special X-ray equipment with sophisticated computers to produce multiple images of pictures of the inside of the body.

The study, performed at Allegheny General Hospital in Pittsburgh, PA, included 132 patients with pelvic fractures who were evaluated using standard X-rays (with special views to detect pelvic fractures) and CT. "Based on the results of our retrospective study, pelvic X-rays, especially special views, failed to identify 48 percent of pelvic injuries and also failed to add any significant value to patient care," said Zulfiqar Ali, MD, lead author of the study.

"Most orthopedic surgeons order special, additional X-ray views after a CT scan has been performed and a diagnosis confirmed. We recommend that these additional views be eliminated since pelvic CT, with multi-planar and three dimensional reconstructed images, is sufficient for complete evaluation of suspected pelvic injuries," said Ali.

"Eliminating these extra pelvic X-rays altogether in cases of suspected pelvic injury can reduce the overall radiation dose to patients; reduce patient discomfort and pain by eliminating unnecessary movements in an injured patient; reduce cost; and ultimately provide faster service to patients," he said.

Provided by American College of Radiology

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