X-rays often inaccurate in the diagnosis of hip and pelvic fractures

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Radiographs (standard X-rays) are often inconclusive in the detection of hip and pelvic fractures in the emergency department, according to a study in the April issue of the *American Journal of Roentgenology*.

"The diagnosis of traumatic fracture most often begins and ends with X-rays of the hip, pelvis, or both," said Charles Spritzer, MD, lead author of the study. "In some cases though, the exclusion of a traumatic fracture is difficult," said Spritzer.

The study, performed at Duke University Medical Center in Durham, NC, included 92 patients who underwent X-rays followed by magnetic resonance imaging (MRI) for the evaluation of hip and pelvic pain. "Thirteen patients with normal X-ray findings were found to collectively have 23 fractures at MRI," said Spritzer. "In 11 patients MRI showed no fracture after X-rays had suggested the presence of a fracture. In another 15 patients who had abnormal X-ray findings, MRI depicted 12 additional pelvic fractures not identified on X-rays," he said.

"Accurate diagnosis of hip and pelvic fractures in the emergency department can speed patients to surgical management, if needed, and reduce the rate of hospital admissions among patients who do not have fractures. This distinction is important in terms of health care utilization, overall patient cost, and patient inconvenience," said Spritzer.

"Use of MRI in patients with a strong clinical suspicion of traumatic injury but unimpressive X-rays has a substantial advantage in the

detection of pelvic and hip fractures, helping to steer patients to appropriate medical and surgical therapy," he said.

More information: www.ajronline.org

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