

Limited Magnetic Resonance Imaging (MRI) and the Occult Hip Fracture

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Abstract

Introduction: Diagnosis of hip fracture is normally readily made from clinical evaluation and plain radiographs. Occasionally, clinical suspicion of fracture is not confirmed on plain X-rays. **Materials and Method:** Between January 2001 and March 2002, 422 patients were admitted to our department for post-traumatic hip pain. The diagnosis of hip fracture was unequivocally made in 365 patients (86%). Fifty-seven (14%) patients had a negative or equivocal radiograph. **Results:** Limited magnetic resonance imaging (MRI) of the hip in this group of 57 patients confirmed that 8 (14%) sustained a femoral neck fracture, while 5 (9%) had an intertrochanteric fracture. In 19 patients (33%), some other pathology was found, mainly stable fractures of the femoral trochanters and pubic rami. Overall, 32 scans (56%) were positive and 25 (44%) were negative. Limited MRI detected patients with undisplaced hip fractures and identified them as candidates for surgery. **Conclusion:** The use of MRI in this specific and 'limited' way provides orthopaedic surgeons with a rapid, accurate and cost-effective diagnostic tool in this clinical scenario. Definitive diagnosis allows the correct management plan to be implemented early. We recommend that patients, who have significant hip pain following injury but indeterminate plain radiographs, undergo a limited MRI scan as a matter of routine.

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