Initial experience of ultrasonographic assessment for paediatric patients with hip pain in the emergency department

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Introduction: Hip pain is a common paediatric presentation to the emergency department. Plain radiographs have been the main imaging modality of choice in the past. There is a lack of published local emergency department experience on the assessment of non-traumatic hip pain in children using ultrasound. We undertake to describe our initial experience. Method: Patients less than 12 years presenting with non-traumatic hip pain or knee pain suspected to be referred from hip were recruited. A 7.5 mHz linear ultrasound probe was used to detect hip effusion. Hip effusion was defined as an anterior capsular distance (ACD) of greater than 5 mm measuring from the neck of femur and a difference of greater than 2 mm from the normal side. Patients with effusion were advised admission and those not admitted would be followed up in the Emergency Department. Result: 45 patients (Male: 32; Female: 13) with a mean age of 5.4 years were recruited from November 1997 to October 1998. Hip pain and limping gait were reported in 34 and 22 patients respectively. The initial scan detected hip effusion in 31 cases (69%). Thirty four patients were admitted and the others were followed up in A&E. All patients who had hip effusion were diagnosed to have transient synovitis. Nine out of 14 patients (64.3%) who did not have hip effusion were also presumed to be due to transient synovitis in the in-hospital record. The sensitivity and specificity for ultrasound assessment of hip pain were 76.9% and 93.3% respectively. No septic arthritis was found. Conclusion: Our experience supports ultrasound evaluation as an important evaluation tool for children presenting with irritable hip in the emergency department. (Hong Kong j.emerg.med. 2001;8:146-149)

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