

Pitfalls In Diagnosing Slipped Capital Femoral Epiphyses In A Young Athlete: A Case Report

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Abstract

Slipped Capital Femoral Epiphyses (SCFE) is a relatively common hip entity among young athlete. In SCFE, the proximal femoral epiphyses slip posterior or posteromedially relative to the metaphysis. Young athletes particularly those aged between 10 to 15 years old are more susceptible to SCFE due to skeletal immaturity and vulnerability of growth plate to shearing force during adolescent growth spurt. Early detection with prompt surgical intervention is essential for good outcome and prognosis with higher possibility of return to play in this population. However, SCFE diagnosis is often missed due to various factors including the inexperience of healthcare providers in managing this condition. We report a case of a 13 year-old overweight tennis male player who initially presented with left groin pain for two months following a fall during a tennis match. Physical examination revealed antalgic gait with tenderness over the left inguinal region as well as significant reduction in hip flexion and abduction. The diagnosis was overlooked as a simple adductor strain and patient was allowed to continue playing. Consequently, he had a second fall during training which worsened his condition. The positive Trethowan's sign (Klein's line failed to intersect the epiphyses) on his plain anteroposterior radiograph of pelvis was missed causing a delay in referral for definitive surgical treatment. Furthermore, frog-leg lateral view radiograph and magnetic resonance imaging was not performed. The diagnosis of SCFE was made after he was attended by five different physicians with a repeat radiograph. He was eventually referred to the pediatric orthopedic surgeon and underwent percutaneous cannulated screw fixation of proximal femoral epiphyses under the c-arm image intensifier. In this article, we highlight the possible pitfalls in the diagnosis and management of SCFE among young population and the review of recent literatures.

Keywords

slipped capital femoral epiphyses, epiphyses, hip, pediatrics, adolescent