



ANTERIOR HIP DISLOCATION IN A SOCCER PLAYER: A CASE REPORT

Orthopaedics

Dr Sidhant Rana Civil Hospital Kangra, Himachal Pradesh**Dr Vipul Singh*** Primary Health Centre Bagli, Himachal Pradesh. *Corresponding Author

ABSTRACT

Hip dislocations during sporting activities represent only 2%–5% of all hip dislocations. The incidence of avascular necrosis of the femoral head greatly increases if the time to reduction is more than six hours. We report the case of a 27-year-old soccer player who suffered anterior hip dislocation while kicking the ball with the medial aspect of the right foot in an external rotated manner of the right hip. Closed reduction was performed within 1 hour; post reduction follow-up was uneventful. Six months later the patient was out of any complaints; there were no signs of avascular necrosis of the femoral head.

KEYWORDS

Anterior Hip dislocation, sporting activities, Closed reduction.

INTRODUCTION

Hip dislocations during sporting activities represent only 2%–5% of all hip dislocations¹. Most hip dislocations are posterior, caused by impaction of the femoral head upon the acetabulum from direct force to the distal femur. Anterior dislocations are less common and are of two main types: superior, where the femoral head is displaced into the iliac or pubic region and inferior, where the head lies in the obturator region². We report the case of a 27-year-old soccer player who suffered an anterior hip dislocation while football playing.

CASE REPORT

A 27-year-old man with no medical history suffered an anterior traumatic right hip dislocation while kicking the ball with the medial aspect of right the foot in an external rotated manner of the right hip. He then felt a “pop,” and collapsed with an immediate inability to bear weight. Clinically we found an external rotated right leg. Plain radiograph of the pelvis revealed a dislocation of the right hip (Figure 1).



Figure 1: Plain radiograph of the pelvis shows a dislocated right hip.

A closed reduction was performed within 1 hour of the event. The patient lay in a supine position; the pelvis was fixed by a doctor while the orthopaedic surgeon performed a continuous axial extension of the right leg till the femoral head was located distal the acetabulum. At that moment the hip was flexed and internal rotated. This procedure was followed by a snap sound. The reposition procedure using the above-described technique was out of any difficulties. Xray taken after the procedure revealed a congruent right hip and no fracture signs (Figure 2).



Figure 2: Xray after closed reduction shows a congruent hip joint and no fracture signs

As the patient had no complaints and the X-ray showed no signs of fracture, he rejected a proposed MRI. The patient had an uneventful post reduction course and was only allowed touch-down weight bearing for 6 weeks. At the six months follow-up, the patient was out of any complaints with a full range of motion of the right hip. X-ray in two planes shows a congruent right hip without signs of AVN or osteoarthritis after 6 months (Figure 3).



Figure 3: Anteroposterior view of the X-ray of the right hip 6 months after closed reduction shows a congruent hip joint and no signs of AVN or osteoarthritis.

DISCUSSION

Soccer is the world's most popular sport, with over 200 million participants worldwide¹. Epidemiological studies have shown the incidence of soccer injuries to be 10–35 per 1000 game hours and it is therefore estimated that every player will have one performance limiting injury a year². The most common injuries are contusions, sprains, and/or strains in the thigh, knee, and ankle. Risk factors of soccer injury have been identified as personal (intrinsic) and/or environmental (extrinsic). Personal risk factors include physical and psychological characteristics of the individual, for example, ligamentous laxity, pre-existing pathological condition of musculoskeletal system, previous injuries, and inadequate rehabilitation. Environmental factors include condition of playing field (uneven, dry, wet), equipment (skin guard, shoes, etc.), rules of the game, and foul play³. Most hip dislocations in sports can be categorised as “less complicated traumatic hip dislocations” by the Stewart and Milford classification⁴ due to the fact that minimal force is involved; however, the same prognostic factors that determine the functional outcome in more severe hip injuries apply to the injuries reported here. The incidence of avascular necrosis of the femoral head greatly increases if the time to reduction is more than six hours. The published percentage of avascular necrosis after “less complicated hip dislocations” is 0%–22%⁵. Stiris reported one case of recurrent hip subluxation in a footballer after closed treatment without operative fixation⁶.

Unfortunately there is no possibility to prevent this rare injury while playing football.

CONCLUSION

Our case reported in this paper illustrate the importance of early reduction to produce a stable and congruent joint in order to decrease the risk of subsequent osteonecrosis as reduction may relieve tension across the femoral and circumflex vessels.

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