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A review study on common injuries in field hockey players

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Abstract

This article outlines the most common injuries suffered by female field hockey players. Hockey is a centuries-old sport that is regarded to be the ancestor of all 'stick and ball' activities. The modern game of hockey is played in 132 nations worldwide and is second only to soccer in terms of popularity as a team sport. The injury could be fatal, leaving you disabled for the rest of your life. Injuries may have long-term consequences, as there is evidence that knee and ankle injuries may raise the incidence of osteoarthritis later in life. Although it is difficult to eradicate all injuries, efforts to decrease them are clearly required by coaching and coaching competence. Different research utilized different classifications for injury severity, however injuries were typically included in the less severe group within studies. Sprain, strain, dislocation, lower back pain were the most common type injuries in field hockey players.

Keywords: field hockey, injury, artificial turf, lower back pain etc

Introduction

Field hockey is an Olympic sport that is played at both the recreational and professional levels by men and women. Field hockey is frequently played on artificial turf and involves quick starts, stops, and twists, therefore injuries are prevalent. Injuries to the head, face, shoulder, arm, thigh, and knee are all conceivable. This can happen with or without contact with other players, as a result of blows from a stick or a ball, or as a result of being run into. Pulling muscles in the thigh and groin are common injuries. Pulling muscles in the thigh and groin, hits to the thigh, and sprained joints, particularly in the knee, shoulder, and elbow, are common injuries. Overuse injuries can occur in field hockey players as a result of repetitive actions. Because of the low body positioning while playing, the lower back, groin, knee, and calf are especially prone to overuse injuries. The mechanism of injury could be extrinsic, such as being struck by a hockey stick or a ball, or intrinsic, such as an internal force acting on a muscle or an overuse injury. According to the National Collegiate Athlete Association, Injury rates in field hockey are 6.3/1000 athlete exposures, Training on natural grass resulted in higher injuries

(64.87 percent) than training on artificial turf (35.13 percent). According to Sharnpreet Kaur and Waghmare Sumedhkumar Balajirao (2020) ^[15], Hand/fingers area was more prone to acute injuries. In overuse lower back pain and hip/groin was more susceptible.

Methodology

For the present article secondary data were collected with no publication date restrictions, electronic searches were undertaken in the, Wikipedia, PubMed, Excerpt Medical Database, SPORT Discus, and Cumulative Index to Nursing and Allied Health Literature databases.

External injuries

External injuries are approximately 60 to 80 percent of all injuries. The majority of extrinsic injuries are said to be caused by being struck by a hockey stick or ball. According to an early study, ball and stick injuries account for 72.2 percent of all turf hockey injuries.

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Extrinsic injuries can occur in any part of the body and can result in a laceration that requires suture, a contusion, edema, and inflammation. Extrinsic injuries can occur in any portion of the body and can result in a laceration that requires suture, a contusion, edema, inflammation with associated pain, and acute or long-term incapacity. Blows to the head, throat, or genitals from a deflected ball or stick, as well as collisions with goalkeepers, are the most dangerous injuries in hockey. (Orooj, Munazza *et al.*, (2016) ^[9].

Internal Injuries

Internal injuries are caused by internal forces acting on the muscles, tendons, ligaments, or joints. Intrinsic injuries can cause muscle fibers to be torn (strain), ligaments to be torn (sprain), cartilage to be torn, and localized bleeding and swelling. According NCAA (2015) intrinsic injuries account for 11–18.5 percent of all hockey injuries.

Overuse injuries

Overuse injuries are caused by repeated instances of trauma that might exceed the body's ability to heal properly. Tibia stress, syndrome shin discomfort, iliotibial band pain, low back dysfunction, tendonitis, patella femoral pain, planterfasciitis, and stress fracture of foot and leg are typical examples of this type. Females are more likely than males to sustain overuse injuries (32%). (18 percent).

Common injuries Ankle Sprain

This is a common field hockey injury that happens when the ankle rotates, forcing the sole of the foot to turn inward. The ligaments on the outside of the ankle are generally damaged. The amount of force determines the grade of the sprain a mild sprain is grade 1 a moderate sprain is grade 2, a severe sprain is grade. (Richard Nuttall Physiotherapy Lab)

Rotator cuff Muscle injuries

The most typical cause of a rotator cuff rupture is repetitive microtrauma, which can happen over a period of weeks, months, or even years. Repeated rotator cuff strains or twisting of the rotator cuff tendons will damage the soft tissue, resulting in swelling. Because rotator cuff tendons are only a few millimetres apart from a bony hood (acromion). Because rotator cuff tendons are only a few millimetres apart from a bony hood (acromion). The increased swelling produces a faster impingement. A tear in the rotator cuff tendons caused by catching or squeezing is a loss in shoulder function.

Shoulder dislocation

The Shoulder joint is most usually injured as a result of direct force created by the athlete falling on the point of the shoulder onto the ground or firm objects with the arm at the side in an adducted position. The direct force of striking the tip of the shoulder forces the acromion downward, while the clavicle's downward displacement is limited by the interlocking of the sternoclavicular ligaments. The clavicle is left in its usual anatomic position, but the scapula and shoulder girdle are driven inferiorly. (Crompton B, and Tubbs N. A, 1977) ^[2].

Groin Injuries

Mozes *et al.*, 1985 ^[5] stated that, the iliopsoas muscle can potentially be strained or ruptured during forceful hip flexion. These injuries can produce substantial swelling and may be the cause of femoral nerve palsy. The “sport hernia” or

“hockey hernia” has become a prevalent injury among athletes who participate in sports that require twisting and turning at high speeds, as seen in the hip.

Anterior cruciate ligament injury

The reason for the rise in ACL knee injuries in field hockey is primarily due to the type of quick rotation they perform as players, as well as the type of field played on. When athletes cut on turf, they are more likely to tear a ligament because the friction coefficient on turf is lower than it is on grass. There is less resistance on the turf to keep the player's momentum from sliding, even after they have attempted to come to a complete stop, but the body remains in motion until acted upon. Turf shoes and studs can also cause the foot to become caught in the turf, causing the knee to move in a different direction than the body

Lower back pain

Most ball handling and defensive skills in hockey need a blend of trunk flexion and rotation.

This semi-crouching stance causes more strain on the spine than regular locomotion and is regarded to be ergonomically poor. Back pain in field hockey players has focused on this semi crouched position as the underlying cause of injury and pain (Reilly and Seaton, 1990) ^[10].

Conclusion

The injury could be fatal, leaving you disabled for the rest of your life. Injuries may have long-term consequences, as there is evidence that knee and ankle injuries may raise the incidence of osteoarthritis later in life. Although it is difficult to eradicate all injuries, efforts to decrease them are clearly required by coaching and coaching competence. Different research utilized different classifications for injury severity, however injuries were typically included in the less severe group within studies. Sprain, strain, dislocation were the most common types injuries in field hockey players.

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