Anterior cruciate ligament injury

Science, Biology



Sur Anterior cruciate ligament injury Introduction: Anterior cruciate ligament injury represents one of the most common injuries of the knee. This injury is more common among athletes that take part in sports such as soccer, football, and basketball. Surgery may be required in case of such injuries, depending on the severity of the injury (Anterior Cruciate Ligament (ACL) Injuries).

The Injury:

Mechanism of the Injury -

When ligaments are injured, they are considered as sprains which can be graded depending on the severity of the sprain (Anterior Cruciate Ligament (ACL) Injuries; Hyde and Gengenbach, 114-118).

Sprains of Grade I – This is the case when the damage to the ligament is mild in nature, represented by slight stretch of the ligament but does not affect the knee joint from remaining stable.

Sprains of Grade II – In this case, the ligaments get stretched to an extent such that it loosens and can be considered as a tear for the ligament in a partial manner.

Sprains of Grade III – In this case, the ligament is generally considered to have experienced a complete tear where it might experience getting split into two pieces making the joint of the knee unstable.

Symptoms -

A popping sound may be experienced if the ligament gets injured, and the knee might become unstable. Symptoms generally include pain and swelling in combination. The knee would be swelled within a time period of 24 hours. Sometimes the swelling and pain may be resolved on its own if the injury is mild. However on returning back to sports or activities, the pain may be regained. Other symptoms include loss of full range while performing any activities, tenderness along the line of joint of the knee, and uneasiness while walking (Siebold, 328; Anterior Cruciate Ligament (ACL) Injuries). Structures Involved –

The structures involved in this injury include the collateral ligaments and the cruciate ligaments which are found on the side and inside of the knee of human body, respectively. Ligaments connect the bones within the human body as well, hence included in the effect as well (Anterior Cruciate Ligament (ACL) Injuries).

Treatment -

Both surgical and non-surgical treatments are possible. Non-surical treatments may include bracing or physical therapies, depending on the level of injury (Knee Conditions and Treatments).

Conclusion:

Depending on the level of the ACL injury, symptoms may be identified and accordingly treated.

References

" Anterior Cruciate Ligament (ACL) Injuries". AAOS. AAOS, 2014. Web. 24 November 2014 .

Hyde, Thomas E. and Marriane S. Gengenbach. Conservative Management of Sports Injuries. Massachusetts: Jones & Bartlett Learning, 2006.

" Knee Conditions and Treatments." UCHC. UCHC, n. d. Web. 24 November 2014 .

Siebold, Rainer. Anterior Cruciate Ligament Reconstruction: A Practical Surgical Guide (Google eBook). Berlin: Springer Science & Business, 2014.