

INTRODUCTION

The knee joint is the largest and probably the most complex joint in man. Its position between the two longest lever arms of the skeleton makes it vulnerable to injury by tremendous moments that can be transmitted to it.

It is not surprising that the knee is one of the most frequently injured joints (Miller ,1998).

The anterior cruciate ligament serves an important stabilizing and biomechanical function for the knee joint, Rupture of the ACL leads to abnormal kinematics and predisposes the joint to degenerative changes (Chaudhary et al , 2005).

Injuries to the ACL are common in the athletic population. Anterior cruciate ligament reconstruction has been successful in restoring knee stability and function (George et al ,2006).

Surgical treatment and techniques for ligamentous injuries in the knee have improved significantly over the past two decades. Today, arthroscopic reconstruction of the ACL with autogenous graft material is widely used for patients with anterior knee instability, The reconstruction of ACL is a technically difficult procedure, and often failures can be attributed to surgical errors (Jansson, 2007).



Fig. 1: sport injuries.
(gaddini, 2007).

As many as 10% of patients may experience graft failure and recurrent instability (Wolf et al, 2002).

Patients who undergo anterior cruciate ligament reconstruction require reimaging because of persistent, recurrent, or new symptoms or reinjury of the knee (McCauley et al, 2006).

Anterior cruciate ligament rupture would cause knee instability and if left untreated may result in disability in occupational and sport activities. Currently, the only surgical treatment of ACL rupture is reconstruction performed by different techniques including bone-patellar tendon-bone graft considered to be the strongest available graft (Nazem et al, 2006).

Failed anterior cruciate ligament (ACL) reconstruction presents a difficult clinical challenge, Successful revision ACL reconstruction depends on identifying the causes of failure and correcting technical or diagnostic errors(**George et al, 2006**).

Failed ACL reconstruction may be either traumatic or atraumatic. Atraumatic failures may be attributable to technical errors, diagnostic errors, or failure of graft incorporation(**George et al, 2006**).

Published outcomes of revision ACL reconstruction have been worse than for primary ACL reconstruction
(**George et al, 2006**).