

Graft choice: Bone-tendon-bone

許晉榮 洪誌鴻 許弘昌
中國醫藥大學附設醫院骨科部



Abstract:

The surgeon is faced with several dilemmas while treating patients with deficient Anterior Cruciate Ligament (ACL). Once the decision to reconstruct is made the next critical decision is with regards to the graft choice. The factors considered by the surgeon include donor site morbidity, reported rates of graft failure, familiarity with the graft, surgical time, associated complications, ability to restore the patient's activity to pre-injury level and cost effectiveness.

In 1969 Kurt Franke pioneered the use of free BPTB grafts consisting one third of patellar tendon and attached patellar and tibial bone block. This is now the gold standard among graft choices against which the effectiveness of the other grafts is compared. The advantages of BPTB graft such as high strength and stiffness, consistency of the size of the graft, ease in harvesting, early graft incorporation and solid fixation using interference screw make it the commonest autograft to be used. However there are several complications associated with the use of BPTB due to harvest site morbidity such as anterior knee pain, pain when kneeling, patellar fracture, late patellar tendon rupture, numbness due to injury to the infra-patellar branch of the saphenous nerve and loss of quadriceps function.