

Advances in anterior cruciate ligament reconstruction techniques

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“Caminante no hay camino, se hace camino al andar.” Antonio Machado (1). (*“Wayfarer, there is no way, make your way by going farther.”*)

The anterior cruciate ligament (ACL) injury and the complications that entail its reconstruction has been a source of interest for many years. The first reported reconstruction with ACL graft was dated in 1913 and performed by Grekov, published in 1919 (2). The first English-written publication regarding ACL reconstruction with a graft was of Hey Groves in 1917 (3).

K. Jones described the first patellar tendon graft in 1963, with a series of 11 patients (4), and popularized by Clancy in the 80s (5).

There are mainly two types of grafts for ACL reconstruction. First, grafts with tendon and bone, such as bone-tendon-bone or Achilles tendon with a calcaneal bone block. On the other hand, graft with only soft tissue (hamstring, fascia lata, anterior or posterior tibialis).

Despite the patellar tendon has been the preferred graft for many years (6), and is still considered as gold standard in ACL reconstruction (7,8), the use of hamstring graft has increased recently (9). The ease in its surgical technique and the good outcomes observed has been crucial elements in favoring its worldwide expansion (8).

Several complications have to be considered with both techniques. The patellar tendon graft may present anterior knee pain within the donor site (10). The use of biological

therapies can accelerate regeneration of the donor site as well as decrease pain in this area (11).

Regarding hamstring graft, its decreased diameter can determine an increase rate of rupture (12).

The study by Cruz *et al.* (12) brings up a very interesting issue. Despite it is well known the need to tension the graft tendons once prepared, for a period of time, the thickness was not considered as a variable during this period. Measuring the diameter of the hamstring graft once measured to obtain the tendons, it does not arise different depending on the time of tension.

In preparing the tunnels, the use of drill bits or dilators increasing medium and one progressive millimeter is common. The variation of the graft can condition us an excessively thick tunnel and can leave us with a too wide space that produces a bell effect and favors the graft failure.

The same study shows us this variable that can certainly improve the surgical technique in case of using this type of graft (12).

Undoubtedly, the small steps in improving surgery are contributing to a long-term knowledge. One of the greatest poets of our country told us in his poems that you *“make your way by going farther”* (1).

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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