Reviewer’s report

Title: Anterior cruciate ligament reconstruction using quadriceps tendon autograft for adolescents with open physes

Version: 1 Date: 29 October 2010

Reviewer number: 2

Reviewer’s report:

General comment

The present study intends to describe the surgical technique of their transphyseal ACL reconstruction using quadriceps tendon autograft in children and adolescents with open growth plates, and to report their early results of the surgical technique. The authors concluded that their ACL reconstruction technique represents a promising alternative to previously described procedures. In addition, the paper includes a case of growth disturbance after the surgery. The patient developed a progressive valgus-flexion deformity.

A lot of controversy still exists about the surgical techniques for children and adolescents with open growth plates to minimize the risk of growth disturbance. In my opinion, the paper contains some interesting aspects. I think that the paper would be of interest to the general readership of SMARTT. However, the paper needs some revision work before it can be published.

Specific comments

1. Minor Essential Revisions
   Introduction:
   Figures should always be cited in text in consecutive numerical order. Figures 1-4 are missing in the text.

2. Minor Essential Revisions
   Methods, 6th paragraph:
   Abbreviations should be defined at first mention and used consistently thereafter (the AM tunnel).

3. Major Compulsory Revisions
   Results:
   The reviewer is well aware that one of the purposes of this study was to investigate their early results “in terms of postoperative growth disturbances”. However, some subjective and/or objective evaluation of the knee after surgery should be included in order to conclude that their ACL reconstruction technique represents “a promising alternative to previously described procedures”.

4. Major Compulsory Revisions

Discussion:
It may be desirable to discuss the case of growth disturbance after the surgery. I'd like to know why the autograft bone block was placed within the femoral posterolateral epiphyseal plate in that case, and how to prevent the malplacement of the bone block.

5. Minor Essential Revisions

References:
References should be formatted according to the SMARTT reference style.

6. Discretionary Revisions

Figure 3:
I think that the femoral tunnel position in Figure 3 is a little bit higher although the authors described that the femoral tunnel position is 9:30 in the right knee and 2:30 in the left knee.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.