

Dear Editor

We read the article “Anatomical ACL reconstruction with double bundle: first 40 cases” by Zekcer A. *et al* [Rev Bras Ortop 2011;46(3): 262-5] with great interest and would like to make some comments on what was reported in that paper.

The authors drilled an anteromedial femoral tunnel with the knee flexed at 90°. At this degree of flexion, the tunnel is significantly shorter than it is at flexions of 110 and 130°⁽¹⁾. Technical reports have suggested that the tunnel should be drilled at an angle between 110° and total flexion⁽¹⁻⁵⁾. In a study submitted for publication in the RBO, we concluded that flexion of 110° produces femoral tunnels that are sufficiently long for a good bone-graft interface.

Zekcer *et al* reported that in most cases, the conventional arthroscopic portals are sufficient for viewing femoral tunnels, and that in some cases an accessory portal located more medially should be used. We always use an accessory anteromedial port: the arthroscope is placed in the anteromedial portal in order to better view the anteromedial and posterolateral insertions in the lateral femoral condyle. Through the accessory anteromedial portal, we mark out the insertions of the anterior cruciate ligament in the lateral femoral condyle⁽⁶⁾ and the drilling positions for the tunnels. Fu *et al*⁽⁷⁾ reported that anteromedial femoral tunnels were accurately constructed through an anteromedial tibial tunnel in only 10% of the cases, whereas this was achieved through a posterolateral tibial tunnel in 60% of the cases

and through an accessory anteromedial portal in 100% of the cases in which this was the chosen access route.

They also stated that with the knee flexed at 120°, the anteromedial and posterolateral femoral tunnels were parallel. However, in a study on cadavers, Siebold *et al* showed that the centers of the anteromedial and posterolateral bands were aligned at 102° of knee flexion⁽⁸⁾.

Zekcer *et al* reported that they had two cases of confluence of the tunnels in the tibia. This can occur if the tibial insertion of the anterior cruciate ligament is small; if the tibial insertion of the anterior cruciate ligament is less than 14 mm, reconstruction of this ligament with a single band is indicated⁽⁹⁾.

Regarding the financial difficulty, the cost of surgery with a double band can be diminished if metal interference screws are used in the tibia and if the femoral fixation is of suspensory type, with Brazilian materials approved by ANVISA.

We congratulate the authors for their article and for their courage in facing the learning curve needed for accomplishing anterior cruciate ligament reconstruction with a double band, when indicated, with the aim of seeking to improve the quality of what we can offer to our patients.

*Julio Cesar Gali and Heitor Campora de Sousa Oliveira
Sorocaba/SP*

REFERENCES

1. Basdekis G, Abisafi C, Christel P. Influence of knee flexion angle on femoral tunnel characteristics when drilled through the anteromedial portal during anterior cruciate ligament reconstruction. *Arthroscopy*. 2008;24:459-64.
2. Cha PS, Brucker PU, West RV, Zelle BA, Yagi M, Kurosaka M, Fu FH. Arthroscopic Double-Bundle Anterior Cruciate Ligament Reconstruction: An Anatomic Approach. *Arthroscopy*. 2005;21:1275.e1-e8.
3. Zantop T, Haase AK, Fu FH, Petersen W. Potential risk of cartilage damage in double bundle ACL reconstruction: impact of knee flexion angle and portal location on the femoral PL bundle tunnel. *Arch Orthop Trauma Surg*. 2008;(128):509-13.
4. Bedi A, Altchek DW. The “Footprint” Anterior Cruciate Ligament Technique: An Anatomic Approach to Anterior Cruciate Ligament Reconstruction. *Arthroscopy*. 2009;25:1128-38.
5. Giron F, Buzzi R, Aglietti P. Femoral tunnel position in anterior cruciate ligament reconstruction using three techniques (A cadaver study). *Arthroscopy*. 1999;15: 750-6.
6. Gali JC, Mod MSB, Mimura HM, Kushyama W. Reconstrução Anatômica do Ligamento Cruzado Anterior com Dupla Banda: estudo prospectivo com seguimento de dois anos. *Rev Bras Ortop*. 2011;46(1):31-6.
7. Fu FH, Shen W, Starman JS, Okeke N, Irrgang JJ. Primary anatomic double-bundle anterior cruciate ligament reconstruction: a preliminary 2-year prospective study. *Am J Sports Med*. 2008;36(7):1263-74.
8. Siebold R, Ellert T, Metz S, Metz J. Femoral Insertions of the Anteromedial and Posterolateral Bundles of the Anterior Cruciate Ligament: Morphometry and Arthroscopic Orientation Models for Double-Bundle Bone Tunnel Placement – A Cadaver Study. *Arthroscopy*. 2008;24(5):585-92.
9. Pombo MW, Wei Shen W, Fu FH. Anatomic Double-Bundle Anterior Cruciate Ligament Reconstruction: Where Are We Today? *Arthroscopy*. 2008;24(10):1168-77.

The authors declare that there was no conflict of interest in conducting this work

This article is available online in Portuguese and English at the websites: www.rbo.org.br and www.scielo.br/rbort