Current Issue
Browse Issues
Search
About this Journal
Instruction to Authors
Online Submission
Subscription
Contact Us
RSS Feed

Acta Medica Iranica
2009;47(4) : 205-208

Original Article

Mean Intercondylar Notch Width Index in Cases With and Without Anterior Cruciate Ligament Tears

A. Alizadeh MD[1]
V. Kiavash MD[2]
1. Associate Professor, Department of Radiology, Guilan University of Medical Sciences, Rasht, Iran.
2. Department of Radiology, Guilan University of Medical Sciences, Rasht, Iran.

Corresponding Author:

Ahmad Alizadeh
Address: Department of Radiology, Poursina Hospital, Rasht, Iran.
Tel: +98-131-322-2010
Fax: +98-131-323-9842
Email: alizade_ahmad@yahoo.com

Received: May 5,2008
Accept : July 27,2008

Abstract:

Background/Objective: It has been proposed that a narrow intercondylar notch may increase the risk of anterior cruciate ligament (ACL) injury but the data are conflicting. We performed this cross-sectional study to investigate if a narrow intercondylar notch width is a risk factor for ACL tears.

Patients and Methods: All adult patients with knee problems, who were referred to the MRI department of Poursina Hospital, Rasht, Iran, from October 2006 to October 2007, were included in this study. Axial and longitudinal MRI were performed using a 1-T Phillips machine with the patient's knee in an extended position. In all patients, the femoral notch and the distal condylar width were measured. Cases with normal ACL were used as control and patients with a complete or incomplete tear of ACL were chosen as case group. Because of the effect of osteoarthritis in decreasing the intercondylar notch index, cases with obvious osteoarthritis were not included in the study. Independent sample Student's t test was used to compare the means.

Results: 328 patients were enrolled in the study. The age range was 18-72 years. We found no significant difference in the mean notch width index (NWI) in patients with (0.296) and without (0.298) an ACL tear (P>0.05). In addition, there was no significant difference in the frequency of ACL tears in patients with and without critical notch stenosis (P>0.05).

Conclusion: We did not find a relationship between narrow intercondylar notch width and ACL tears and we do not recommend a knee MRI to predict the probability of ACL injury.

Keywords:

Anterior Cruciate Ligament ، Intercondylar Notch ، Knee

TUMS ID: 12510

Full Text HTML Full Text PDF 301 KB

top ▲

Home - About - Contact Us