27 noviembre 2014

III curso de cirugía artroscópica básica de cadera

Palacio de Congresos Kursaal

San Sebastian

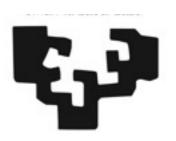


Dr. IÑAKI MEDIAVILLA

Prof. Asociado de la Universidad del Pais Vasco

Hospital Universitario Basurto

Bilbao

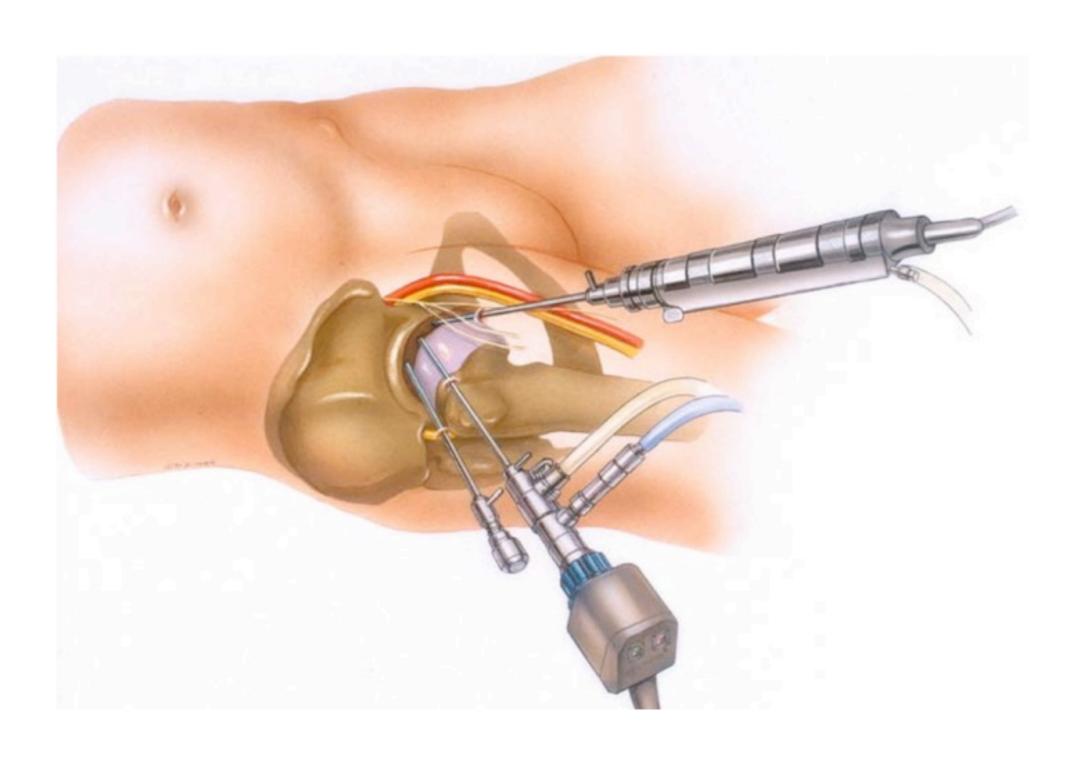


16:30 4ª Mesa Redonda: Lesiones y técnicas Moderador: Dr. Juan Ribera

- * Lesiones y técnicas del A.F.A.; existe el pincer? Dr. Boris García-Benítez
- * Inestabilidad capsular, existe?
 - Dr. Iñaki Mediavilla
- * Q en espécimen: Artroscopia en Pincer Dr. Á. Villamor / Dr. A. Sánchez / B. Muñoz
- * Panel de discusión
 - Dr. E. Esnal, Dra. I. Gómez-Arrayás, Dr. C. Mella

¿la inestabilidad capsular existe?

- la capsulotomía, ¿causa inestabilidad?
- la inestabilidad, ¿cuál es su origen?
- entonces... ¿existe?
- y... ¿la bibliografía?



During hip arthroscopy, an anterior capsulotomy is typically performed at the beginning of the procedure with the goal of increasing the maneuverability of instruments and visualization of the joint. In most cases, the incision starts

1 cm from the acetabular rim and continues parallel to the labrum, connecting both portals^{23,25}; however there are

Arthroscopic management of femoroacetabular impingement: osteoplasty technique and literature review.

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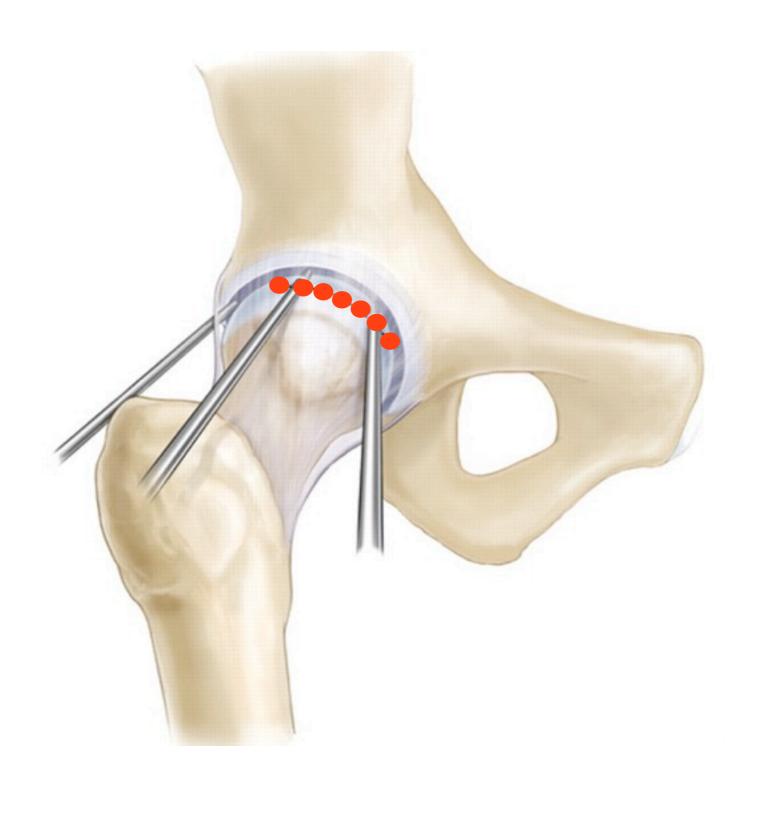
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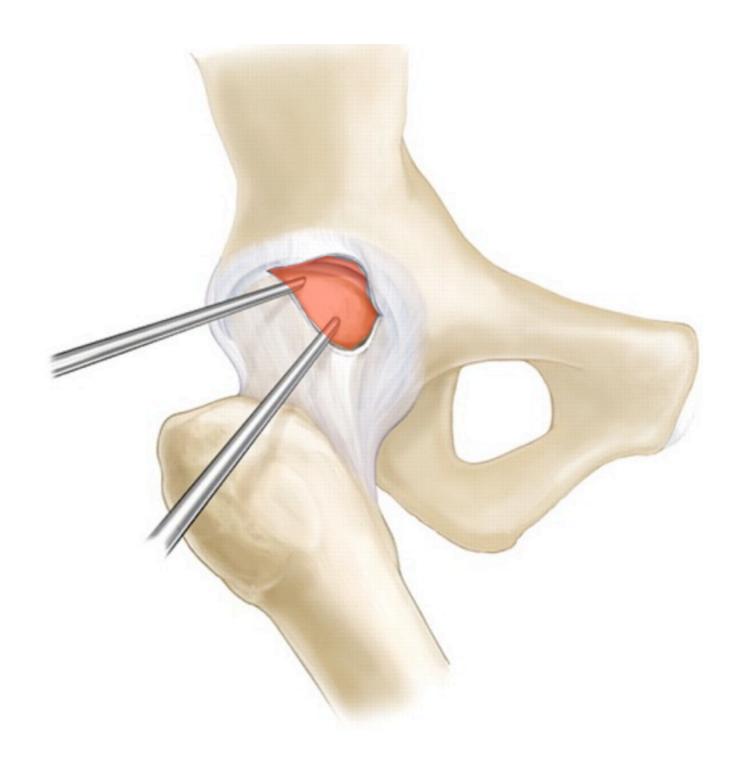
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concepto: "ojal"





ARTHROSCOPIC TREATMENT OF FEMOROACETABULAR IMPINGEMENT

Thomas G. Sampson, MD

emoroacetabular impingement (FAI) is caused by conflicts among the femoral head-neck junction, the peripheral acetabulum, and the acetabular rim. Two types of FAI have been identified: cam and pincer.

Cam FAI is an out-of-spherical head, caused by a bone metaplastic overgrowth at the head-neck junction, that damages the articular cartilage from overload and shear as it rotates into the socket. The result is a spectrum of internal rotation. Patients often complain of positional intermittent pain, sitting intolerance, or a painful pop in the hip. Limping is rare in early stages.

The hip examination may reveal full ROM, except for a reduction in internal rotation caused by bony anterior abutment. A positive impingement test is pain reported when the hip is flexed and internally rotated. Logrolling of the leg may not hurt, and a straight leg raised against resis-

The capsulotomy in most cases may be left open, but in patients with laxity or dysplasia the capsule should be reapproximated with side-to-side sutures.

FAI: open surgical dislocation and trochanteric osteotomy with removal of the offending bone at the head-neck junction, recreating a spherical head in cam FAI! Trimming of an acetabular rim osteophyte with either removal or refixation of the labrum was later described as a treatment for pincer FAI! An arthroscopic equivalent to the open treatment has become popular as a less invasive technique with less morbidity and faster recovery. 5,6

FAI affects men and women equally, begins in the second or third decade of life, and progresses slowly. Conservative management involves avoiding activities that aggravate the pain. In some cases, surgery may be the only alternative for relief.

Indications (examination and imaging may show subtle abnormalities)

Ideal candidates for arthroscopic treatment are young patients without evidence of arthritis. They may experience insidious onset of anterior groin pain or have an injury. Often, FAI is thought to be a groin sprain that never resolved. Some may confuse it with an inguinal hernia or sports hernia. Pain, which may present in other locations about the hip, is aggravated with hip flexion and Patient positioning (lateral c supine approach)

The procedure can be performed with the lateral approach or the supine approach.

In the lateral approach, the patient is positioned in the lateral decubitus position, and care is taken to pad downside bony prominences and place an axillary roll. 9-11 Anterior and posterior hip positioners are placed much as in total hip surgery, and care is taken to maintain a clear view for the fluoroscopic C-arm, which is placed under the table. The operative leg is held in slight forward flexion



Dr. Sampson is Director of Hip Arthroscopy, Post Street Surgery Center, and Medical Director, Total Joint Center, Saint Francis Memorial Hospital, San Francisco, California.

Address correspondence to: Thomas G. Sampson, MD, 2299 Post St, Suite 107, San Francisco, CA 94115.

Am J Orthop. 2008;37(12):608-612. Copyright Quadrant HealthCom Inc. 2008. All rights reserved.

2003

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Byrd JWT.

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In: Byrd JWT, ed. Operative Hip Arthroscopy. New York: Thieme;

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instability

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Clin Orthop Relat Res (2009) 467:760-768 DOI 10.1007/s11999-008-0618-4

SYMPOSIUM: FEMOROACETABULAR IMPINGEMENT: CURRENT STATUS OF DIAGNOSIS

AND TREATMENT

Complications of Arthroscopic Femoroacetabular Impingement Treatment

A Review

Victor M. Ilizaliturri Jr. MD

Hip Instability

Instability of the hip is rarely an issue.

There is a con-

cern that the anterior hip capsulotomy or capsulectomy may reproduce the situation of injury to the iliofemoral ligament resulting in hip instability; however, this phenomenon has not been reported in the literature and the author is not aware of any cases developing instability after extensive anterior hip capsule release.

Victor M. Ilizaliturri, 2009

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Victor M. Ilizaliturri, 2009

la capsulotomía, ¿causa inestabilidad?

iparece que no mucha!

Nuevo abordaje artroscópico de la cirugía de cadera: técnica out-inside

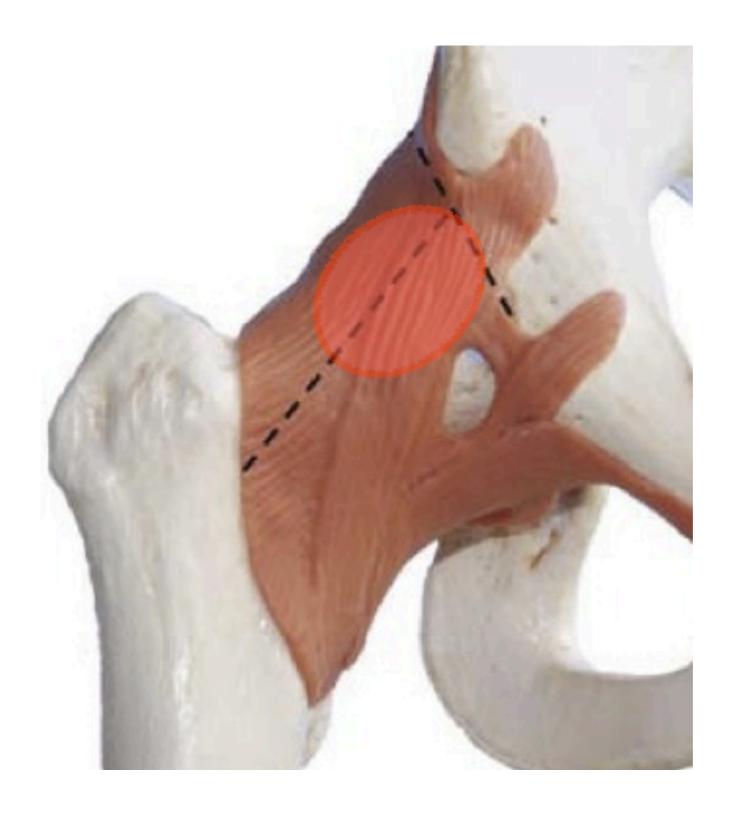
Eric Margalet¹, Iñaki Mediavilla², Oliver Marín³

Capsulotomía

Con la ayuda del bisturí "banana" o de doble filo se inicia una capsulotomía siguiendo el eje del cuello temoral y siempre en sentido distal a proximal. Se continúa la capsulotomía (y se forma un ojal) con la ayuda del vaporizador (Figura 8). Secuencialmente, visualizaremos primero el tejido óseo del cuello femoral y más proximalmente el cartílago articular cuya visión precede a la del *labrum*. Seguidamente, y sobre el hueso pélvico, se realiza una incisión transversal para poder exponer la inserción del *labrum* (Figura 9).

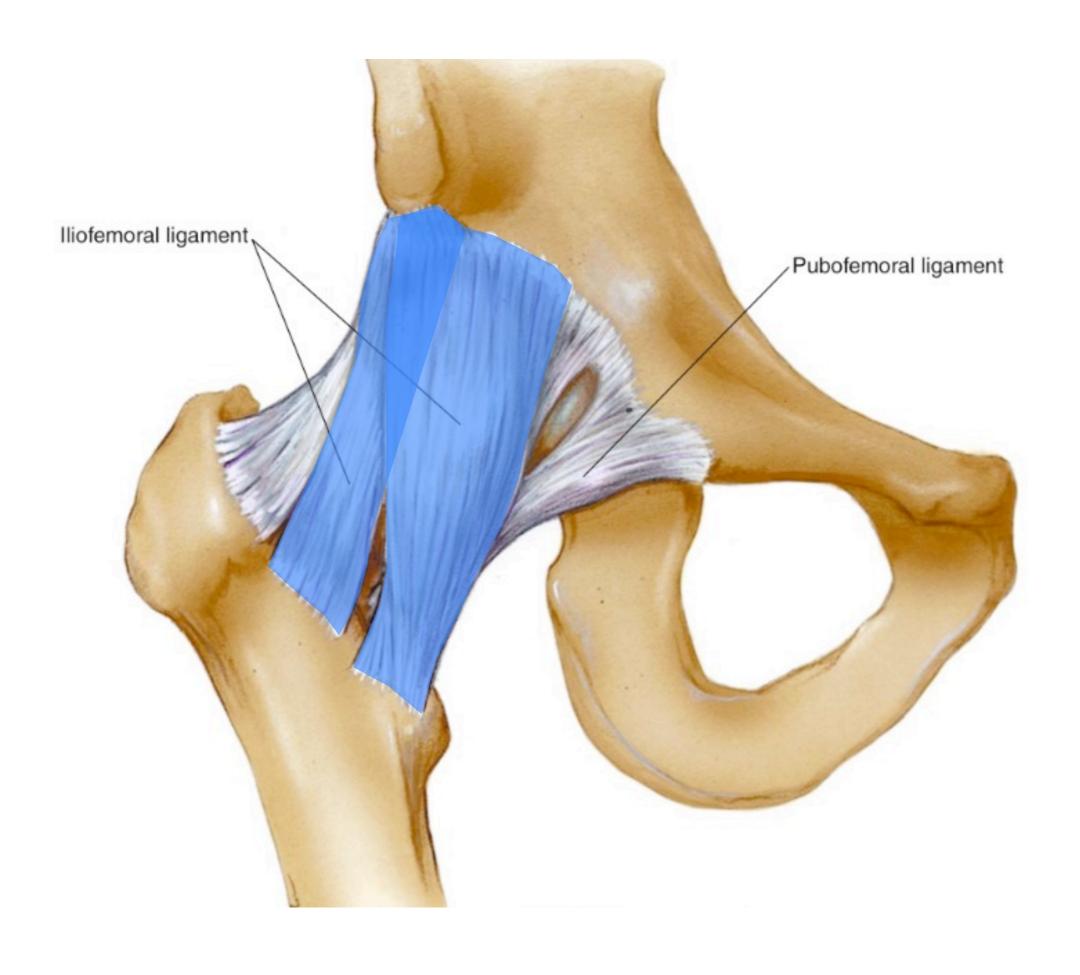


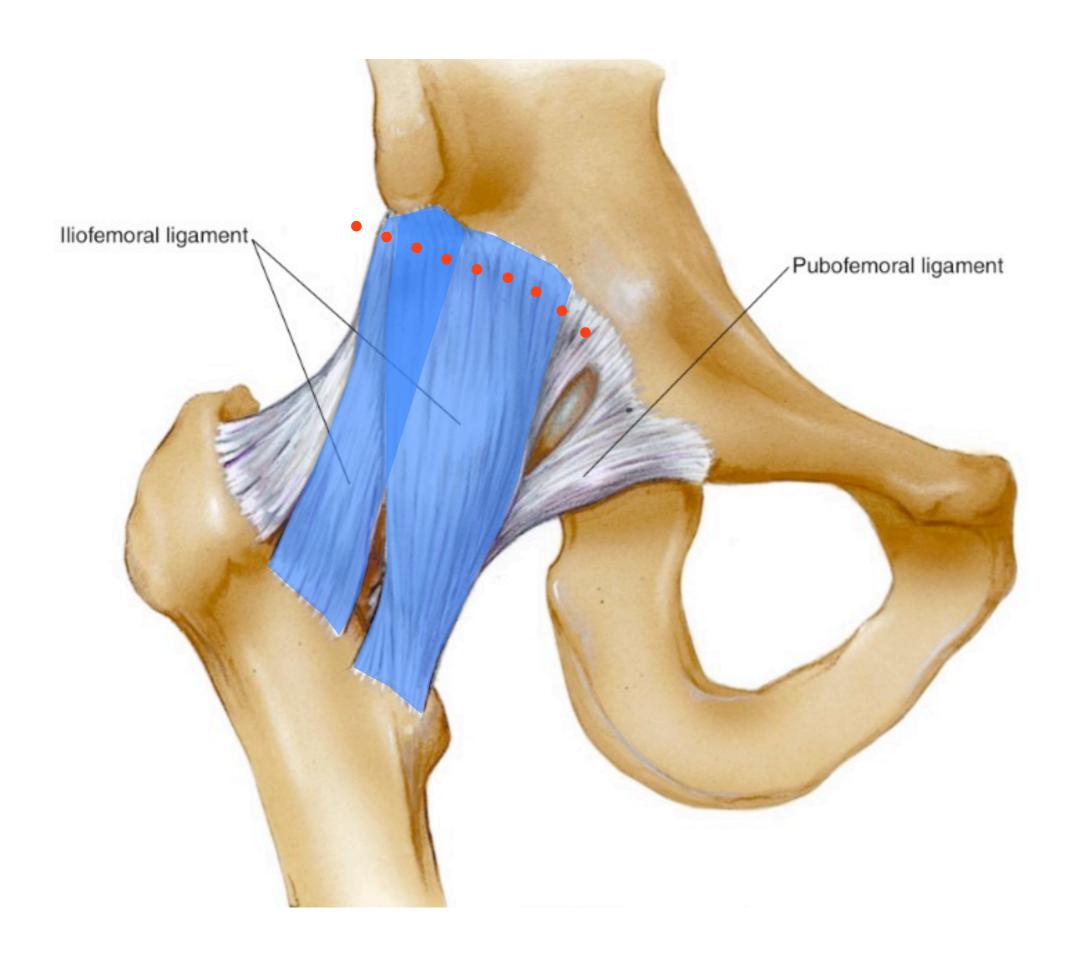
Cuadernos de Artroscopia. Vol. 17, fasc. 1, n.º 41, abril 2010



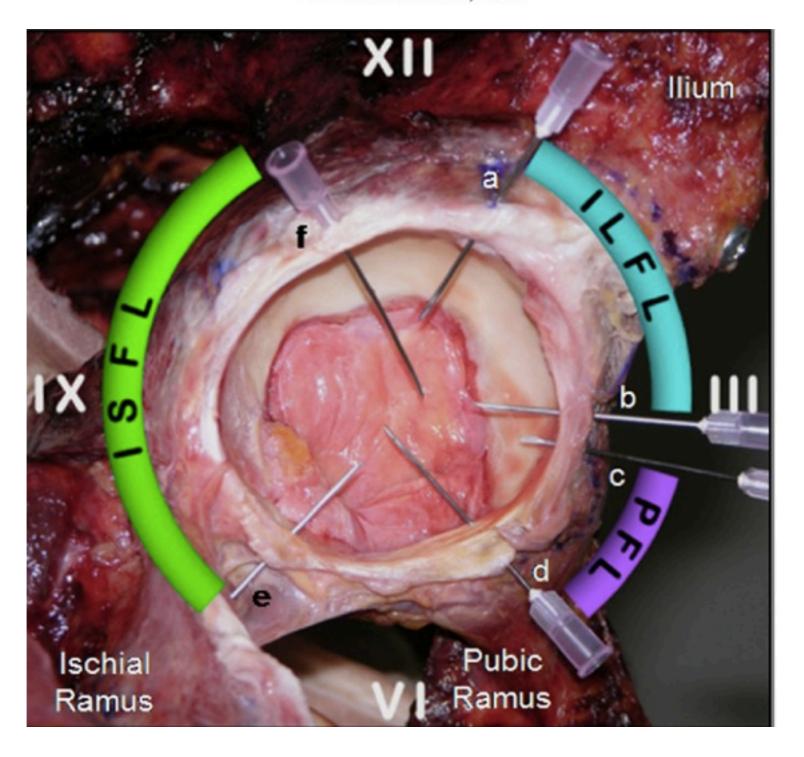
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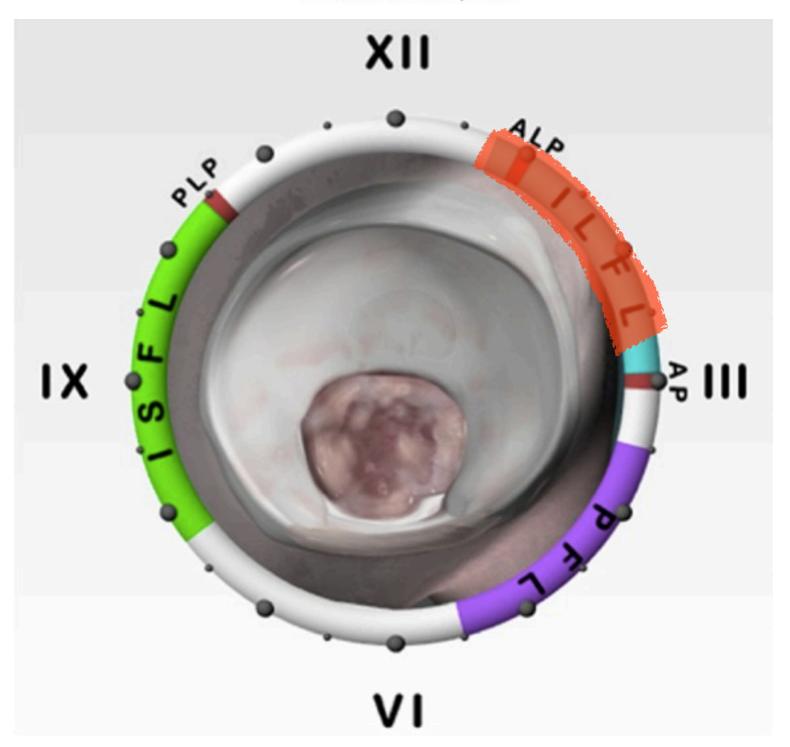
Jessica J. M. Telleria, B.S., Derek P. Lindsey, M.S., Nicholas J. Giori, M.D., Ph.D., and Marc R. Safran, M.D.



Arthroscopy: The Journal of Arthroscopic and Related Surgery, Vol 27, No 5 (May), 2011: pp 628-636

An Anatomic Arthroscopic Description of the Hip Capsular Ligaments for the Hip Arthroscopist

Jessica J. M. Telleria, B.S., Derek P. Lindsey, M.S., Nicholas J. Giori, M.D., Ph.D., and Marc R. Safran, M.D.



Arthroscopy: The Journal of Arthroscopic and Related Surgery, Vol 27, No 5 (May), 2011: pp 628-636

The Proximal Hip Joint Capsule and the Zona Orbicularis Contribute to Hip Joint Stability in Distraction

Hiroshi Ito, 1 Yongnam Song, 2 Derek P. Lindsey, 2 Marc R. Safran, 3 Nicholas J. Giori^{2,3}

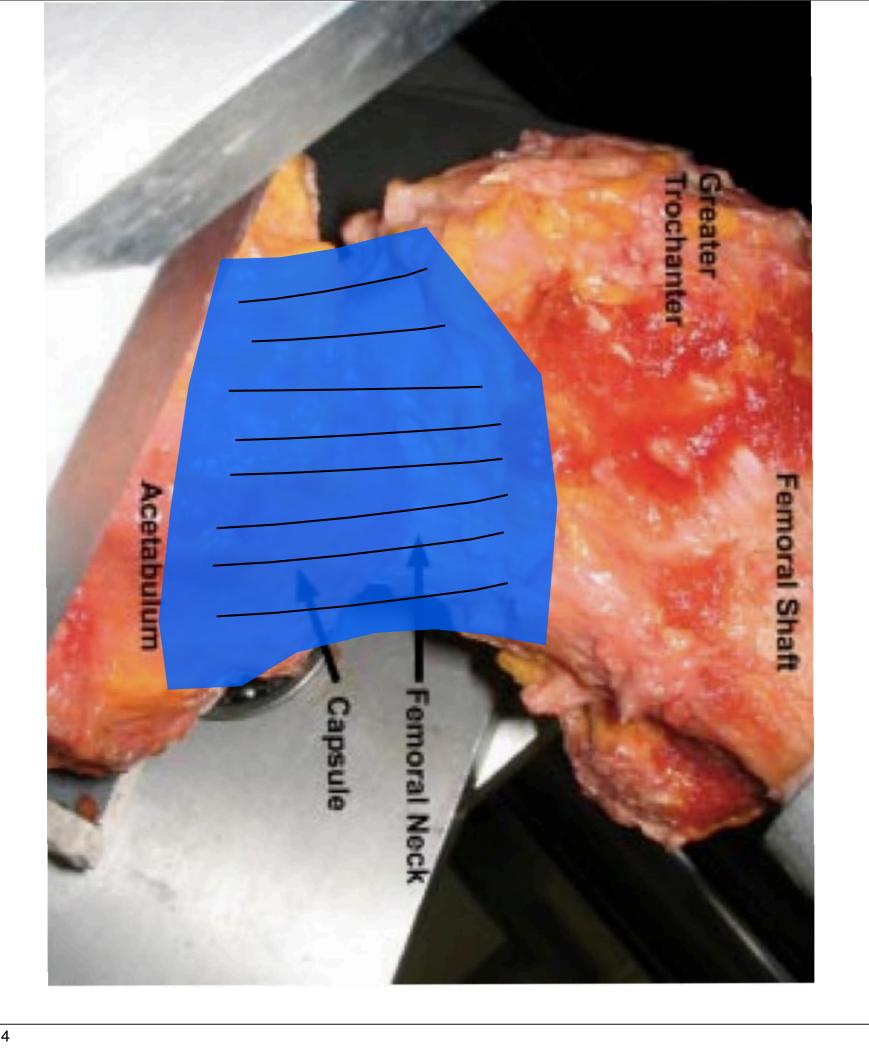
¹Department of Orthopaedic Surgery, Asahikawa Medical College, Midorigaoka Higashi 2-1-1-1, Asahikawa, 078-8510, Japan, ²Veterans Affairs Palo Alto Health Care System, Palo Alto, California, ³Department of Orthopaedic Surgery, Stanford University School of Medicine, Stanford, California

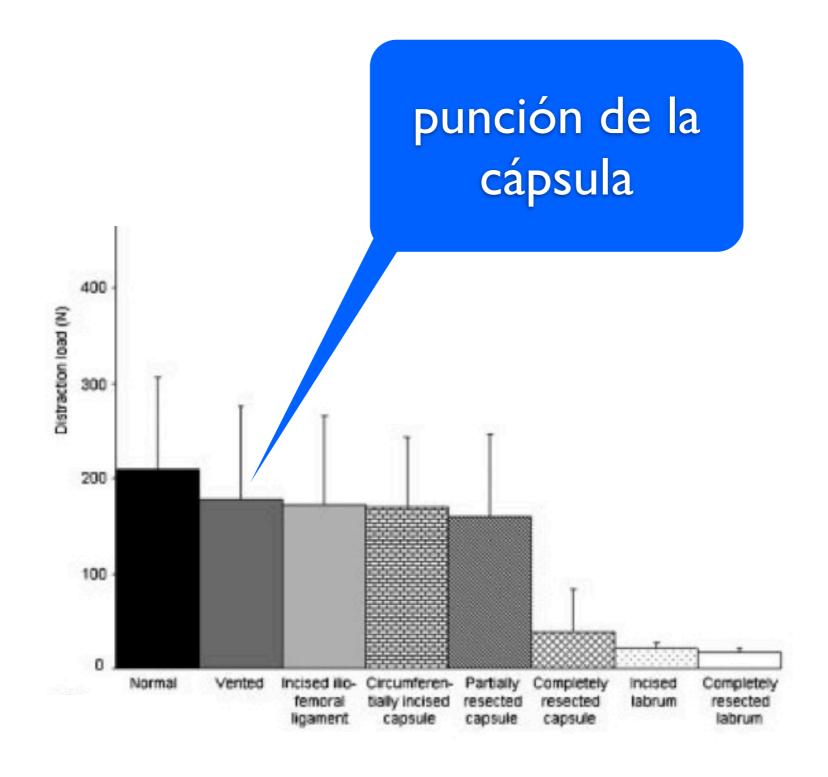
Received 29 May 2008; accepted 8 December 2008

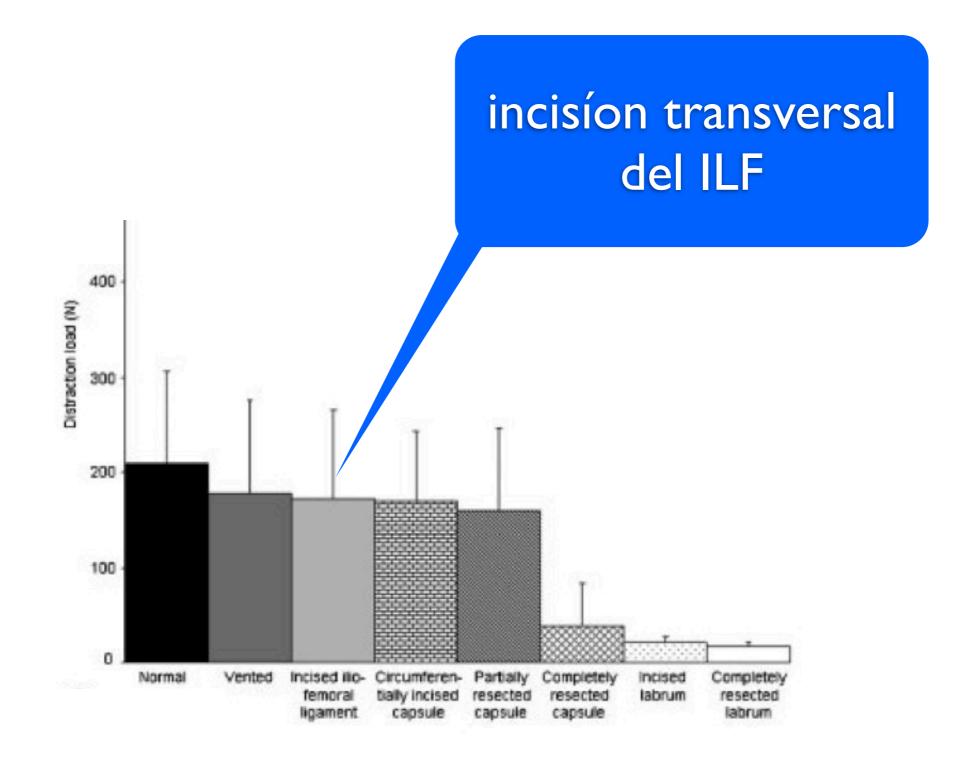
Published online 15 January 2009 in Wiley InterScience (www.interscience.wiley.com). DOI 10.1002/jor.20852

ABSTRACT: The structure and function of the proximal hip joint capsule and the zona orbicularis are poorly understood. We hypothesized that the zona orbicularis is an important contributor to hip stability in distraction. In seven cadaveric hip specimens from seven male donors we distracted the femur from the acetabulum in a direction parallel to the femoral shaft with the hip in the neutral position. Eight sequential conditions were assessed: (1) intact specimen (muscle and skin removed), (2) capsule vented, (3) incised iliofemoral ligament, (4) circumferentially incised capsule, (5) partially resected capsule (distal to the zona orbicularis), (6) completely resected capsule, (7) radially incised labrum, and (8) completely resected labrum. The reduction of the distraction load was greatest between the partially resected capsule phase and completely resected capsule phase at 1, 3, and 5 mm joint distraction (p = 0.018). The proximal to middle part of the capsule, which includes the zona orbicularis, appears grossly and biomechanically to act as a locking ring wrapping around the neck of the femur and is a key structure for hip stability in distraction. © 2009 Orthopaedic Research Society. Published by Wiley Periodicals, Inc. J Orthop Res 27:989–995, 2009

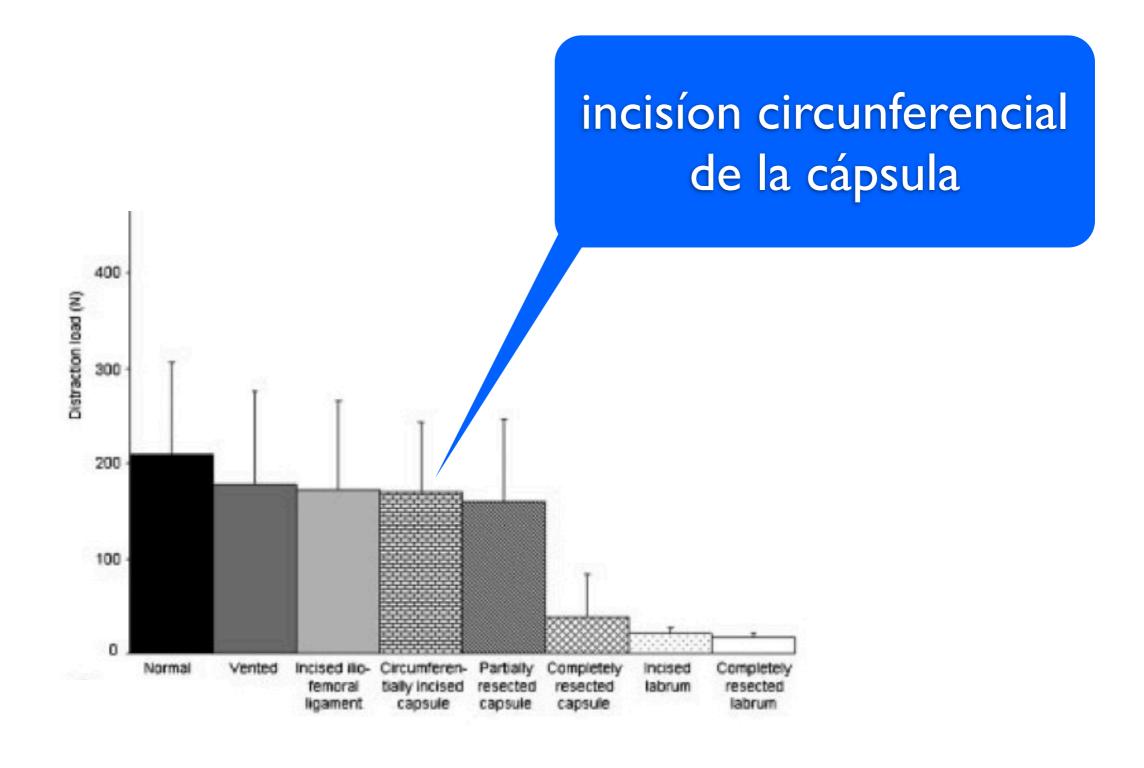
Keywords: hip joint; stability; distraction force

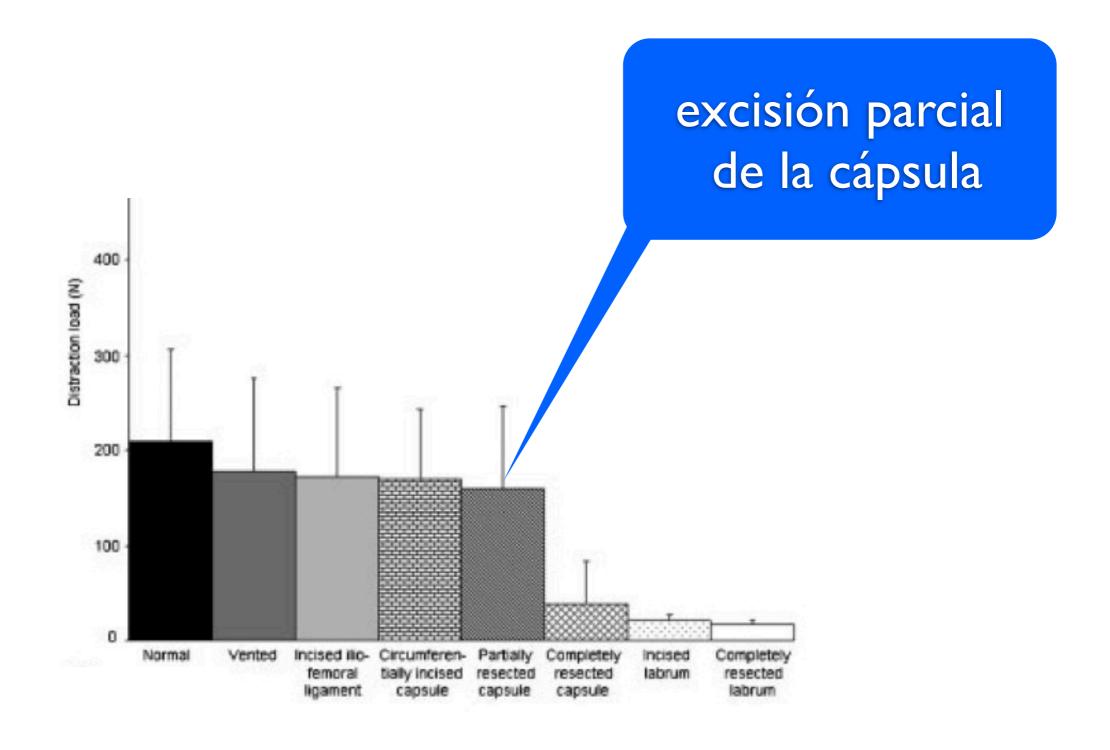


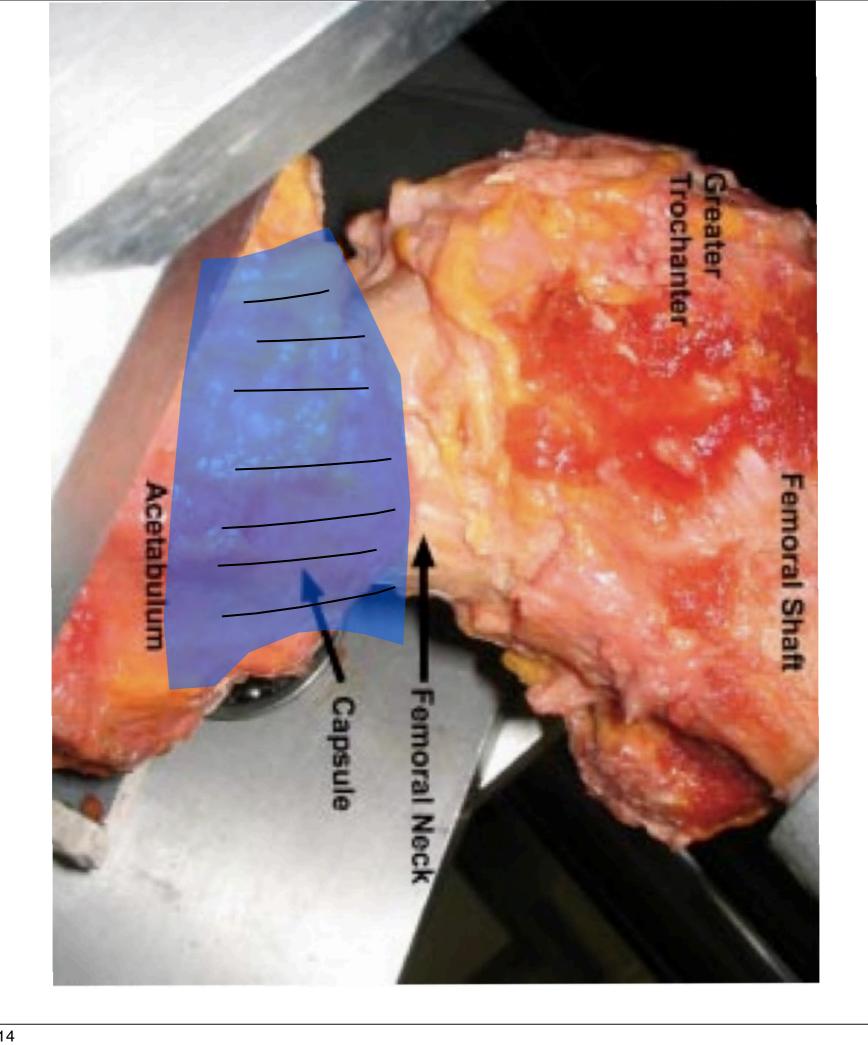


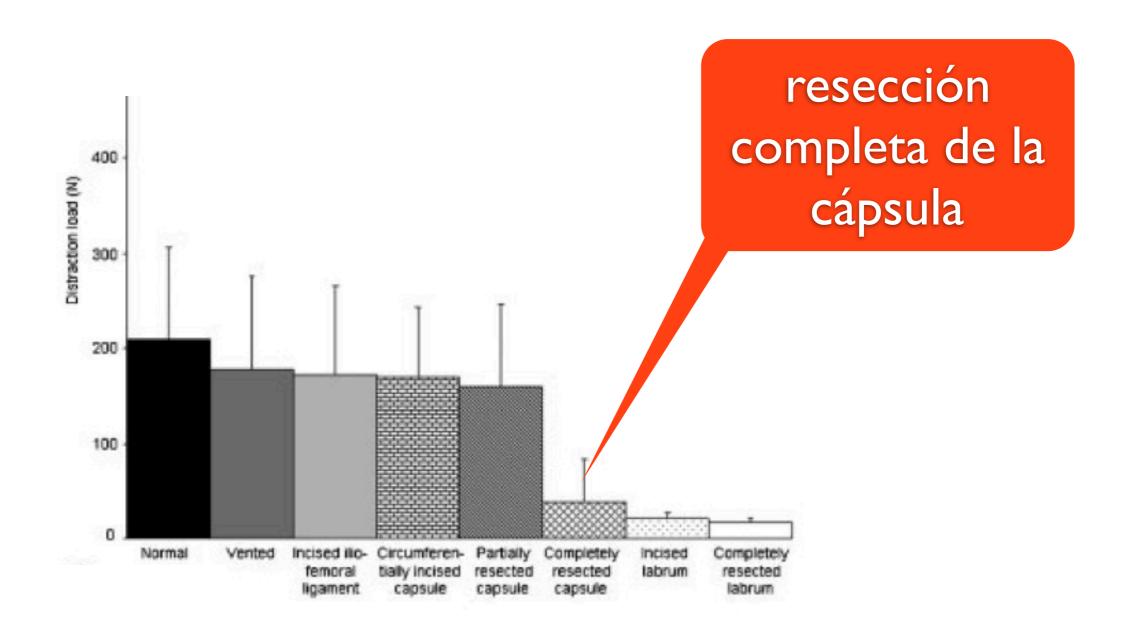


completely resecting the capsule, 10% after cutting the labrum, and 8% after completely resecting the labrum (Table 1). The distraction load reduced in the vented phase at 1- and 5-mm displacements (p < 0.03). The distraction load did not significantly decrease after the iliofemoral ligament was incised compared to just venting the capsule. Further, circumferentially incising the capsule and removing the distal 1 cm (the partially resected capsule phase) did not significantly reduce the distraction load at 3- and 5-mm displacements. The required load after completely resecting the capsule was significantly less when compared to the partially resected capsule at 1-, 3-, and 5-mm displacements (p = 0.018).









Role of the Acetabular Labrum and the lliofemoral Ligament in Hip Stability

An In Vitro Biplane Fluoroscopy Study

Casey A. Myers,*† MSc, Bradley C. Register,† MD, Pisit Lertwanich,§ MD, Leandro Ejnisman,* MD, W. Wes Pennington,* MSc, J. Erik Giphart,* PhD, Robert F. LaPrade,* MD, PhD, and Marc J. Philippon,*| MD Investigation performed at the Biomechanics Research Department of the Steadman Philippon Research Institute, Vail, Colorado

Background: Recent biomechanical reports have described the function of the acetabular labrum and iliofemoral ligament in providing hip stability, but the relative stability provided by each structure has not been well described.

Hypothesis: Both the iliofemoral ligament and acetabular labrum are important for hip stability by limiting external rotation and anterior translation, with increased stability provided by the iliofemoral ligament compared with the acetabular labrum.

Study Design: Controlled laboratory study.

Methods: Fifteen fresh-frozen male cadaveric hips were utilized for this study. Each specimen was selectively skeletonized down to the hip capsule. Four tantalum beads were embedded into each femur and pelvis to accurately measure hip translations and rotations using biplane fluoroscopy while either a standardized 5 N·m external or internal rotation torque was applied. The hips were tested in 4 hip flexion angles (10° of extension, neutral, and 10° and 40° of flexion) in the intact state and then by sectioning and later repairing the acetabular labrum and illofemoral ligament in a randomized order.

Results: External rotation significantly increased from the intact condition $(41.5^{\circ} \pm 7.4^{\circ})$ to the sectioned iliofernoral ligament condition $(54.4^{\circ} \pm 6.6^{\circ})$ and both-sectioned condition $(61.5^{\circ} \pm 5.7^{\circ}; P < .01)$, but there was no significant increase in external rotation when the labrum alone was sectioned $(45.6^{\circ} \pm 5.9^{\circ})$. The intact and fully repaired conditions were not significantly different. External rotation and internal rotation significantly decreased when the hip flexion angle decreased from 40° of flexion to 10° of extension (P < .01) regardless of sectioned condition. Anterior translation varied significantly across sectioned conditions but not across flexion angles (P < .001). The ligament-sectioned $(1.4 \pm 0.5 \text{ mm})$, both-sectioned $(2.2 \pm 0.2 \text{ mm})$, and labrum-repaired $(1.1 \pm 0.2 \text{ mm})$ conditions all resulted in significantly greater anterior translation than the intact condition $(-0.4 \pm 0.1 \text{ mm})$ (P < .001).

Conclusion: The iliofemoral ligament had a significant role in limiting external rotation and anterior translation of the femur, while the acetabular labrum provided a secondary stabilizing role for these motions.

Clinical Relevance: These results suggest that, if injured, both the acetabular labrum and iliofemoral ligament should be surgically repaired to restore native hip rotation and translation. In addition, a careful repair of an arthroscopic capsulotomy should be performed to avoid increased external hip rotation and anterior translation after arthroscopy.

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Hip instability has gained interest in recent years as a cause of pain and disability in the athletic population. The healthy human hip is an inherently stable joint primarily because of the bony congruence between the femoral head and acetabulum. However, the unique soft tissue anatomy surrounding the hip joint is also important in maintaining hip stability, particularly in the presence of hip injury or lesions. The iliofemoral ligament is the strongest of the 3

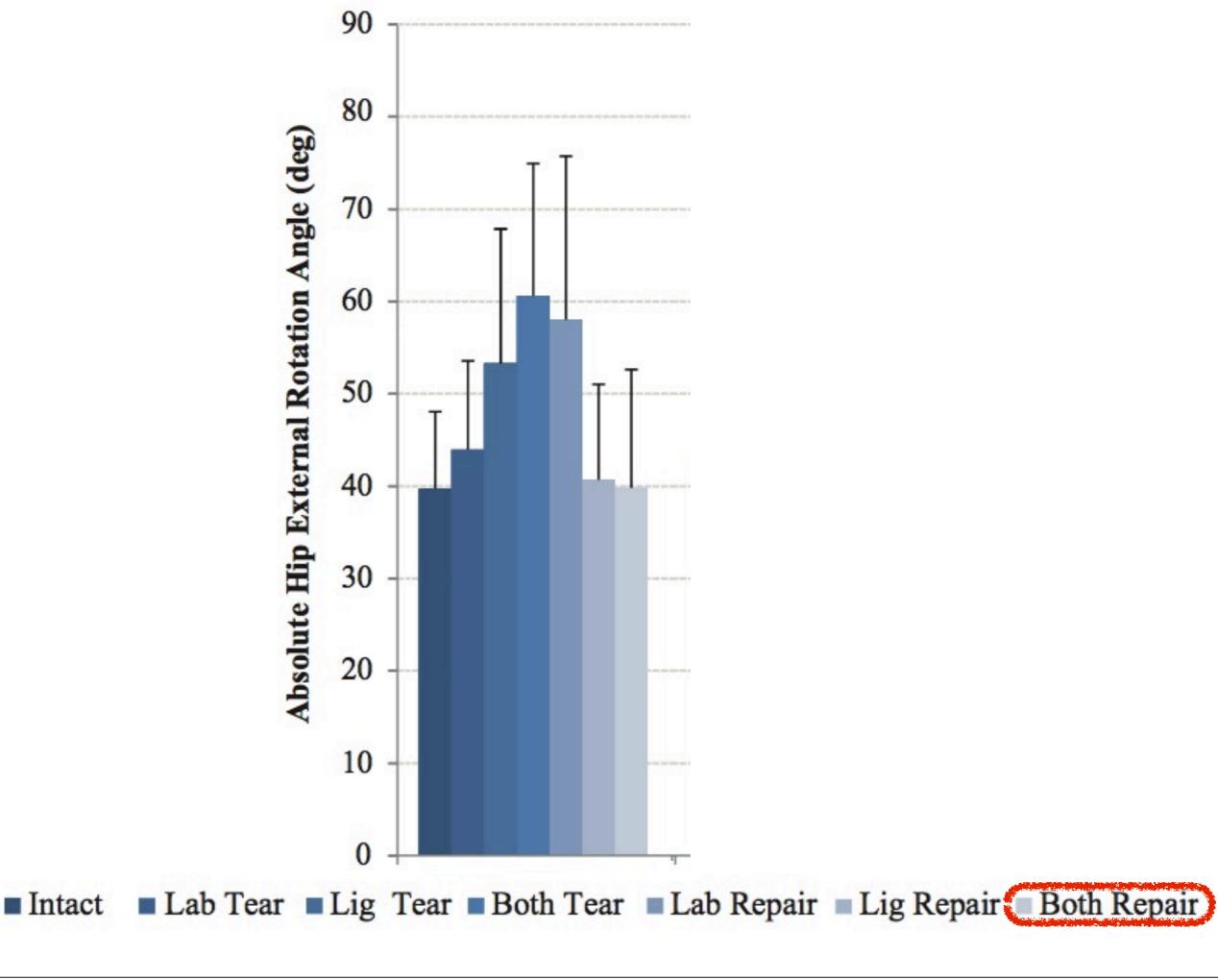
The American Journal of Sports Medicine, Vol. 39, Supplement 1 DOI: 10.1177/0363546511412161 © 2011 The Author(s) capsular ligaments and functions to restrict extension and external rotation of the hip. ^{13,16,18} Additionally, the acetabular labrum is a fibrocartilage ring that attaches to the near-circular outer rim of the acetabulum and limits femoral head translation by deepening the hip socket and maintaining negative intra-articular pressure. ^{8,11,12}

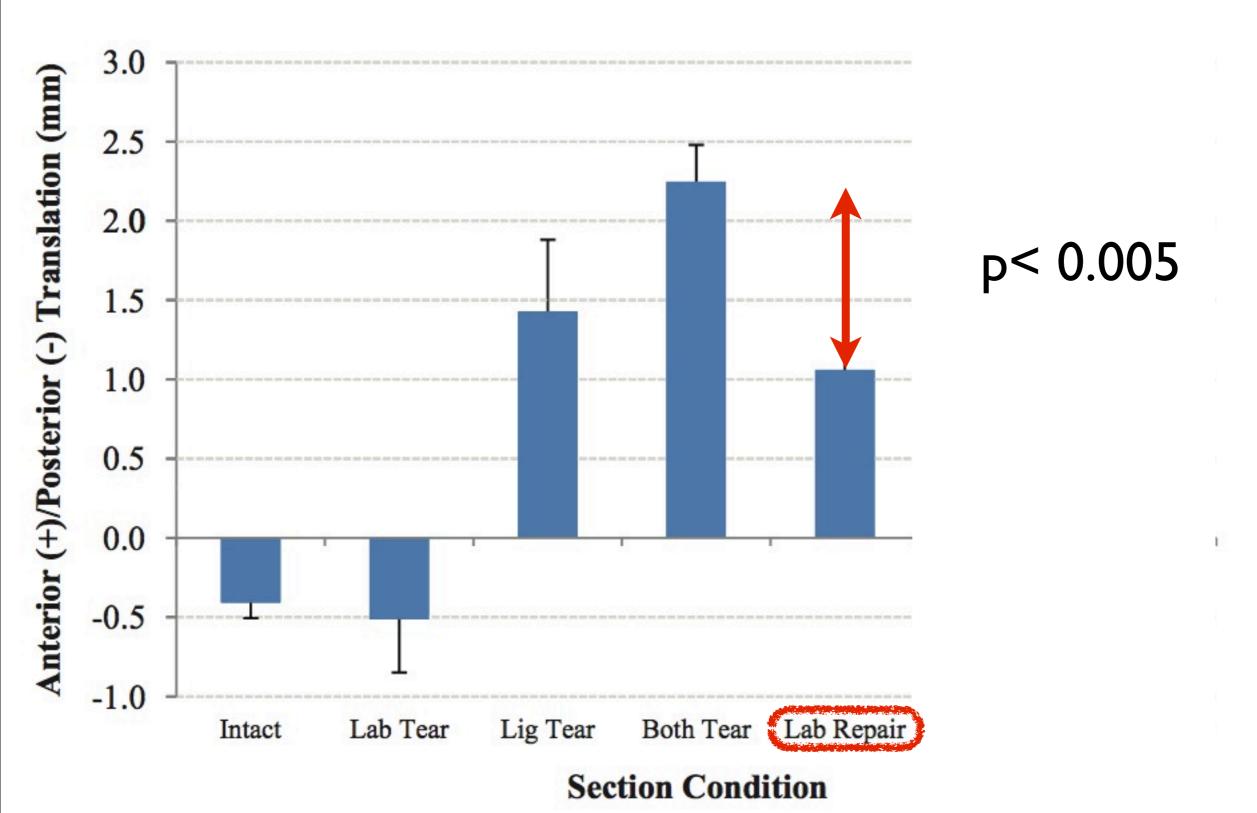
Athletes who participate in sports causing repetitive twisting and pivoting of the hip frequently suffer from a combination of anterior labral tears, elongation of the iliofemoral ligament, and hip microinstability.^{1,9} Loads as high as 5 times body weight have been reported in the hip during running, with potentially greater loads present during more dynamic movements.^{7,26} Additionally,

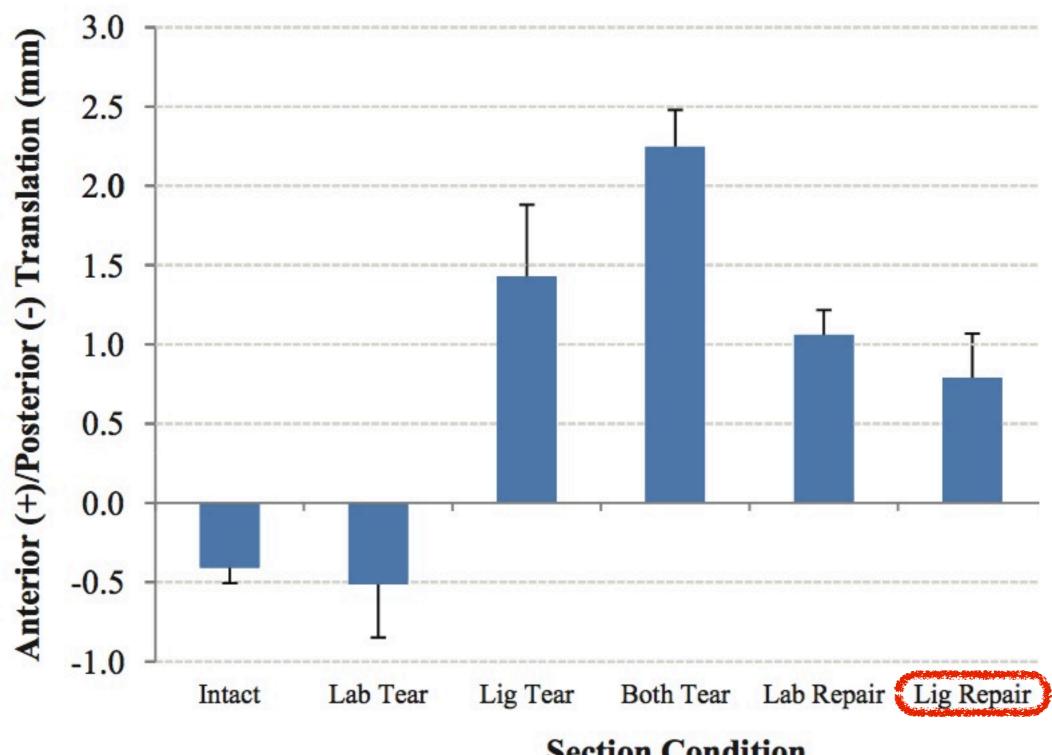
- en laboratorio
- 16 hips (hombres)
- secciona secuencialmente: el labrum y el LIF
- mide la rotación externa y el "cajon anterior"
- sutura secuencialmente: el labrum y el LIF

Role of the acetabular labrum and the iliofemoral ligament in hip stability: an in vitro biplane fluoroscopy study.

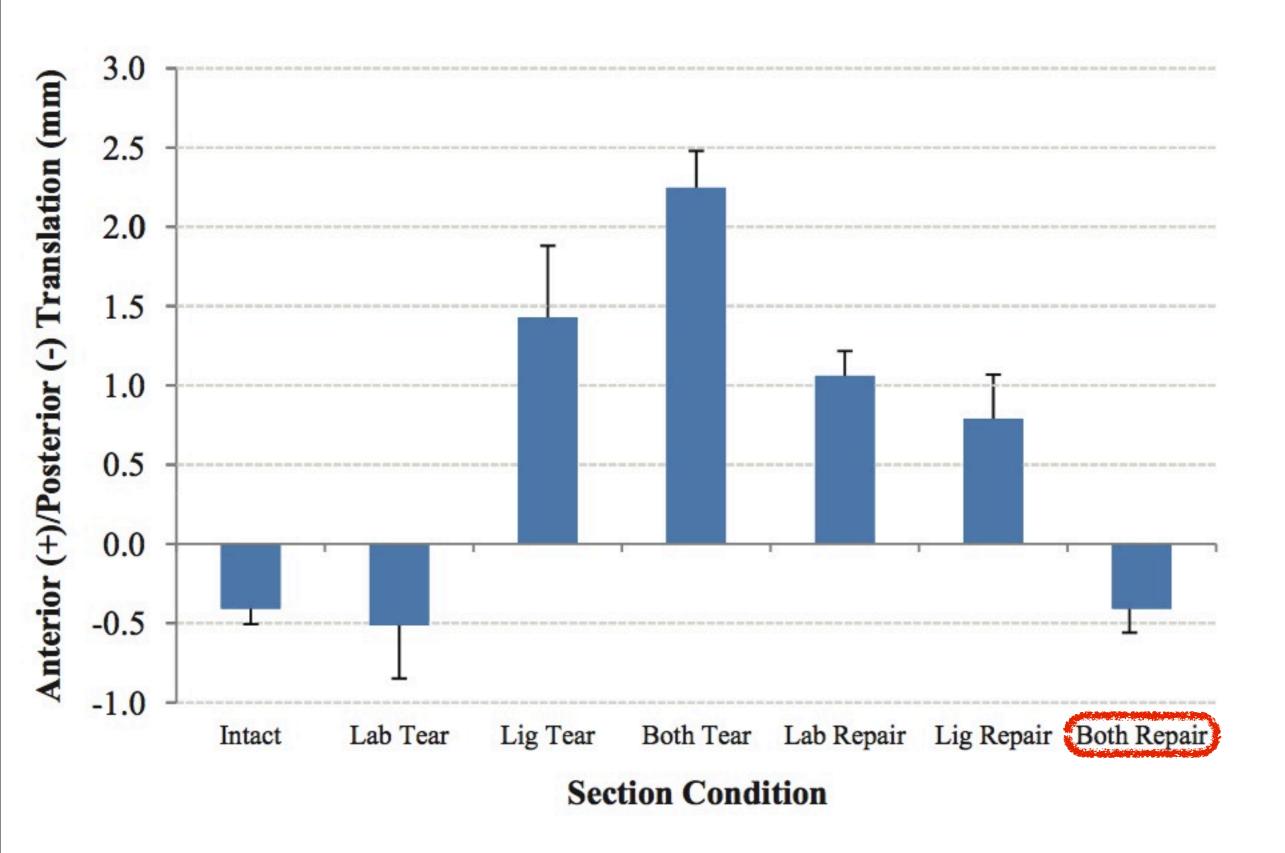
Myers CA, Register BC, Lertwanich P, ..., Philippon MJ. Am J Sports Med. 2011 Jul;39 Suppl:85S-91S.







Section Condition



domingo 30 de noviembre de 2014

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85S

limitaciones metodológicas:

- solo hombres

- ...

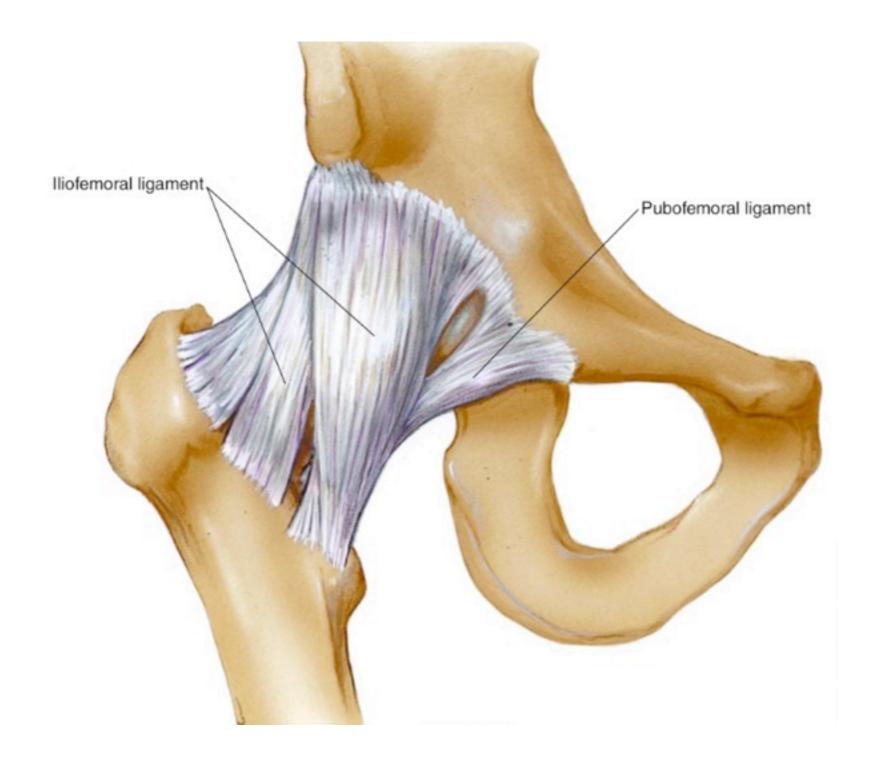
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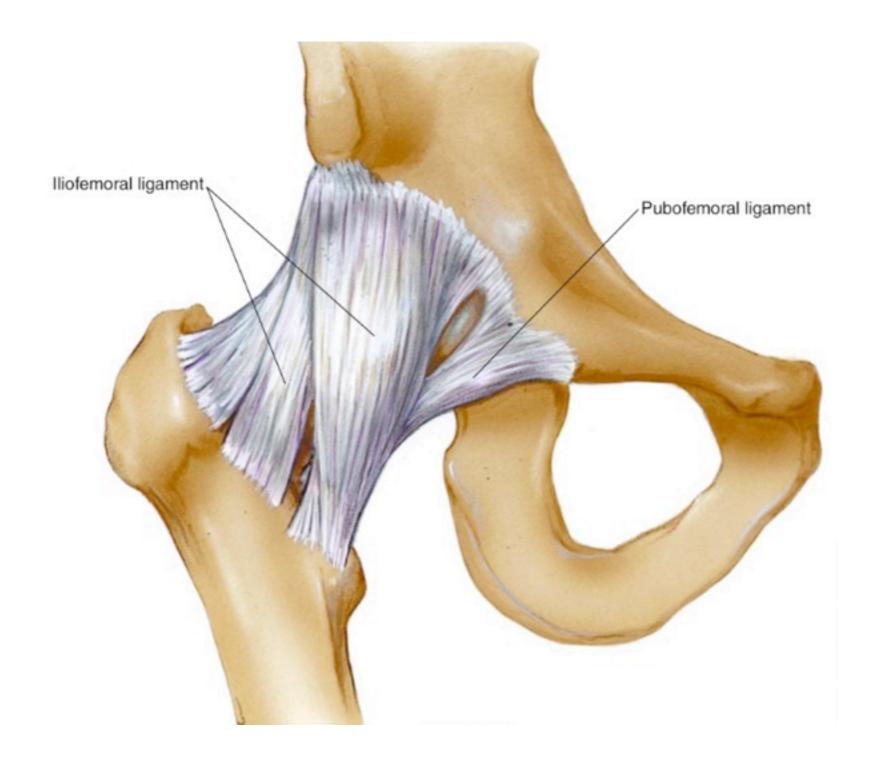
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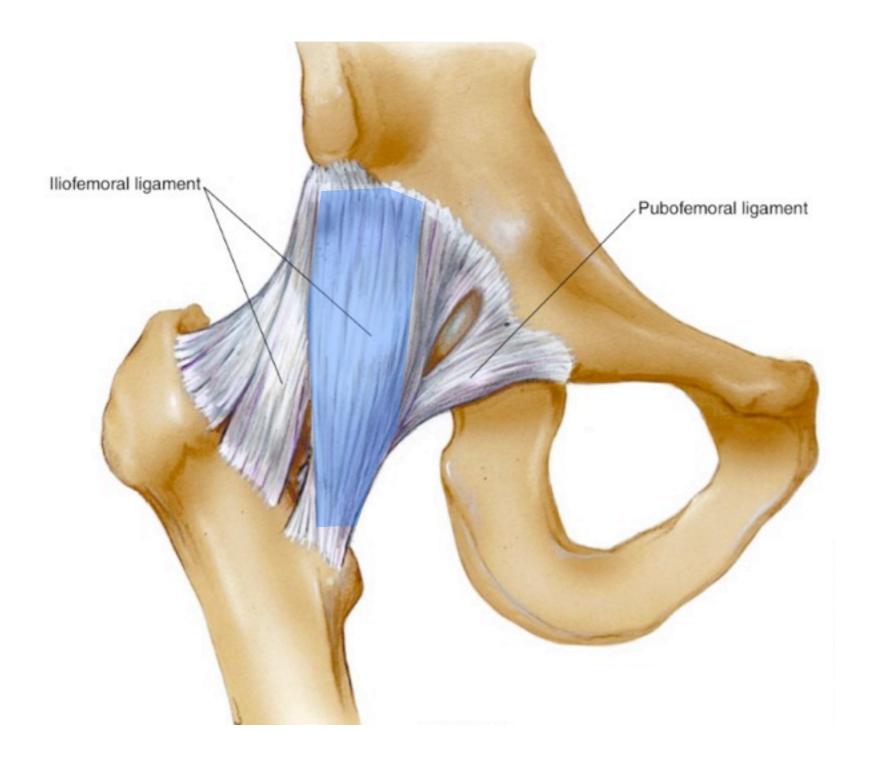
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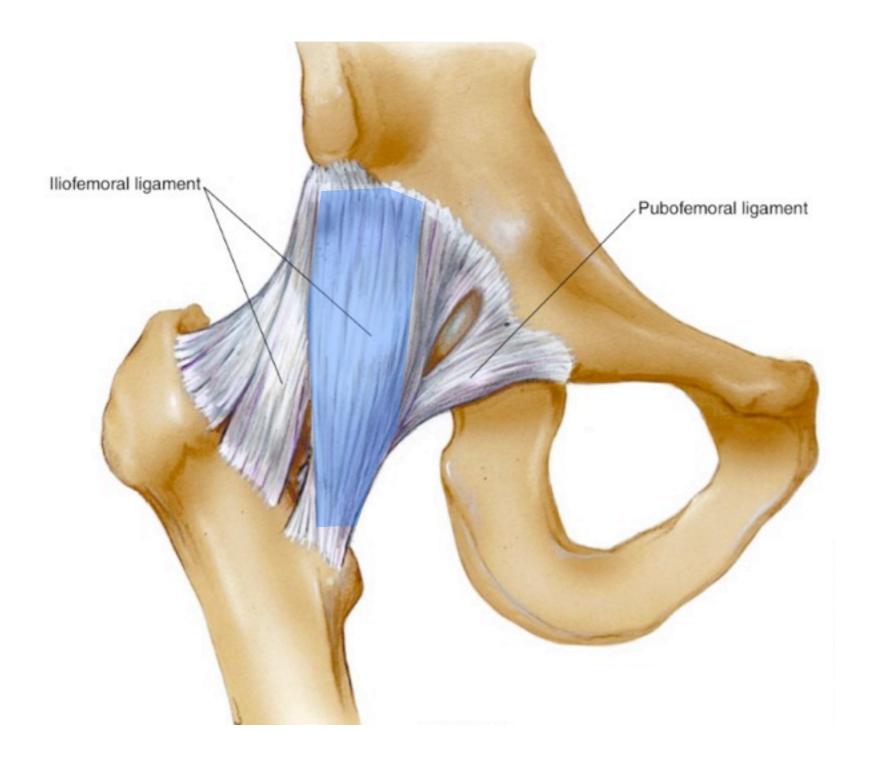
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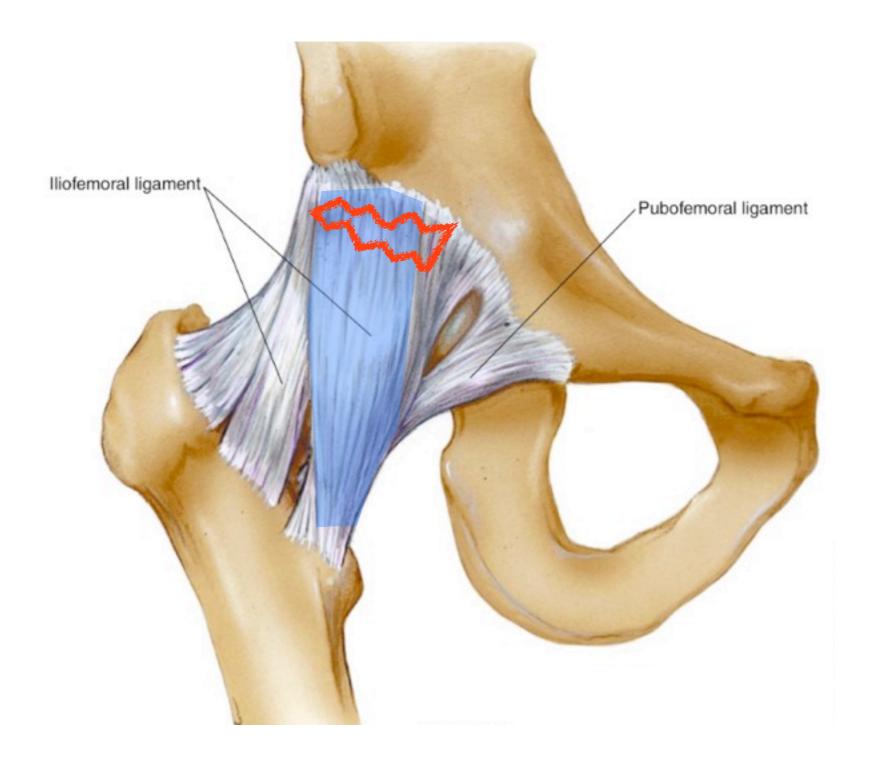
¿y si los sesgos son conceptuales?

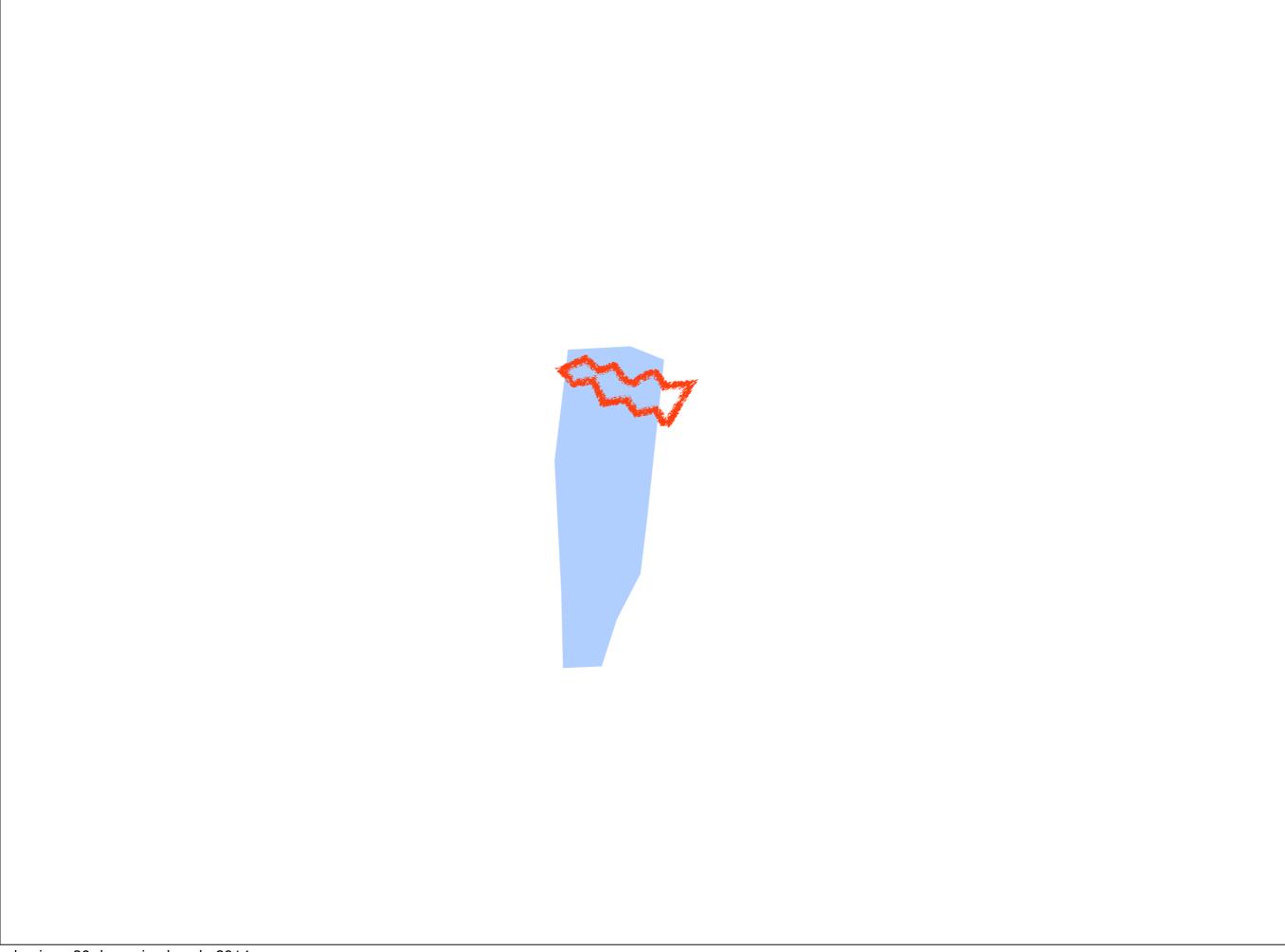






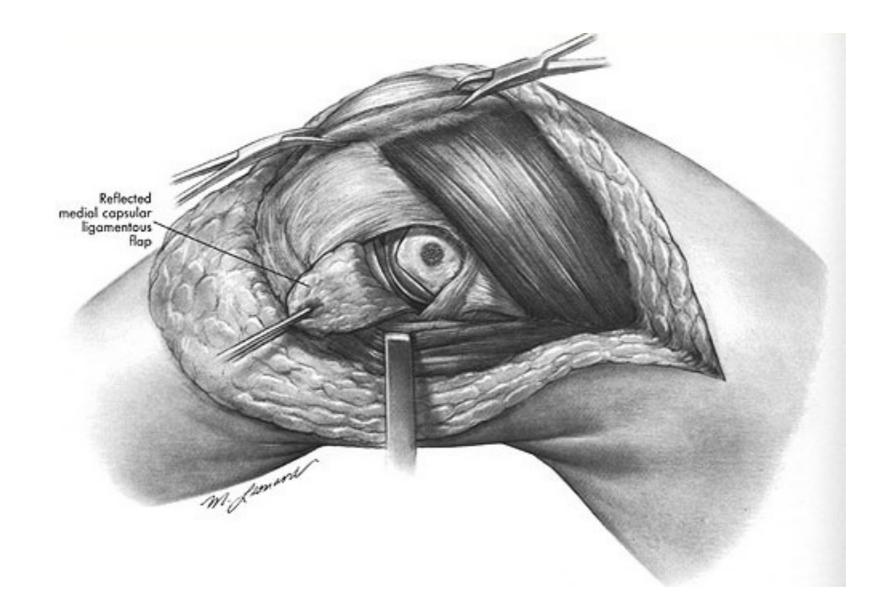












Surgical treatment of fresh injuries to the major ligaments of the knee.

O'DONOGHUE DH.

J Bone Joint Surg Am. 1950 Oct;32(A:4):721-38

Experimental Investigations of Ligamentous Healing

MACK L. CLAYTON, M.D., * Denver, Colorado, AND GORDON J. WEIR, JR., M.D., † Portsmouth, Virginia

From The University of Colorado School of Medicine (Division of Orthopuedics) and the Denver Veterans Administration Hospital, Denver, Colorado.

Following severe injury with complete rup-ture of a ligament, instability of the joint often occurs because the ligament fails to heal with proper length and strength. Most of the clinical interest in the problem has centered about the knee and ankle, since they are particularly vulnerable to ligamentous injuries.

The classic method of initial therapy has been rest and immobilization [5], usually by plaster cast, followed by exercise of the affected joint. Recently several reports have advocated early operation to suture the torn ligament [1,4,9, 11-15

REVIEW OF PREVIOUS EXPERIMENTAL INVESTIGATION

In 1937 Miltner, Hugh, and Fang [11] produced sprains in the knees and ankle joints of rabbits. Mild sprains were produced in twelve, severe sprains in eleven. There was no evidence of bony injury on x-ray examination. The animals were sacrificed at intervals and the specimens examined grossly and microscopically. The animals were not immobilized. Attempts were made to determine the effects of immobilization on the rate of healing but, since it was difficult to maintain satisfactory immobilization by plaster, the results were discarded.

Pathological changes after a mild sprain at the end of one week revealed edema, fibroblastic proliferation, and infiltration with lymphoid cells in the injured ligaments and capsule near the bony attachments. There were similar changes in the synovial tissue with an increase in the joint fluid and evidence of hemorrhage into the subcutaneous tissues. Two and three weeks after sprain there were still signs of acute inflammation of the synovial tissue and a great increase in fibroblasts in the soft tissues surrounding the ligament and capsule. At four weeks there were no remaining gross external signs, but ligaments and synovia still revealed microscopic signs of old hemorrhage, few fibroblasts, more collagen fibers, and less infiltration with leakocytes and lymphoid cells. At six weeks, healing was complete with a late stage of fibrosis, and with shrinkage and contracture of the structures of

In addition to the aforemations changes, he severe sprains revealed a trails the severe sprains revealed a tion of the surface layers of cartilage, especially at the margins of the joint surfaces on the

cats. The joints were immedidetermine the extent of injury; deep structures were not sutured, and the wounds were closed but not immobilized. In every instance, the ligament ruptured along a definite line, without detachment of bone flakes; rupture occurred at the upper end seven times, lower end six times, and there were six cases of a long oblique tear. The ends of the ligament always recoiled, and in the transverse tears a wide gap was frequently found with the body of the ligament curled up and under the arcolar sheath; with displacement the ligamentous tissue became lost

* Clinical Instructor in Orthopsedic Suggery, The University of Colorado School of Medicine, Deaver, Colorado. † Intern at United States Naval Hospital, Portsmouth, Virginia.

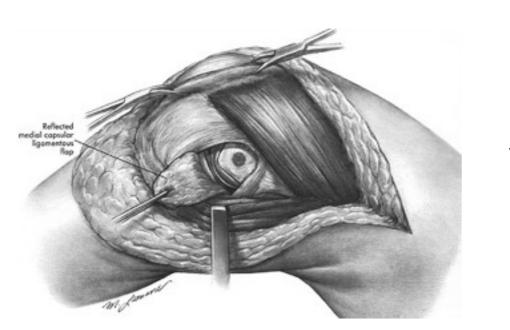
373 American Journal of Surgery, Volume 58, September, 1939

suturados en perros: affected side; there was also definite evidence of a tearing injury at the point of feeting existed for eight to ten weeks. In this series we do In 1950 Jack [7] produced make a partial mark and a las 4-6 semanas

Experimental investigations of ligamentous healing.

Clayton ML, Miles JS, Abdulla M. Clin Orthop Relat Res. 1968 Nov-Dec;61:146-53.

estudio prospectivo



versus



Non-operative treatment of complete tears of the medial collateral ligament of the knee.

Indelicato PA.

J Bone Joint Surg Am. 1983 Mar; 65(3): 323-9.

	GI	G2	G3
reparación	no	si	si
inmovilización	no	3 sem	6 sem

Treatment of the medial collateral ligament injury: II: Structure and function of canine knees in response to differing treatment regimens Woo SLY, Inoue, M, Erin McGurk-Burleson E

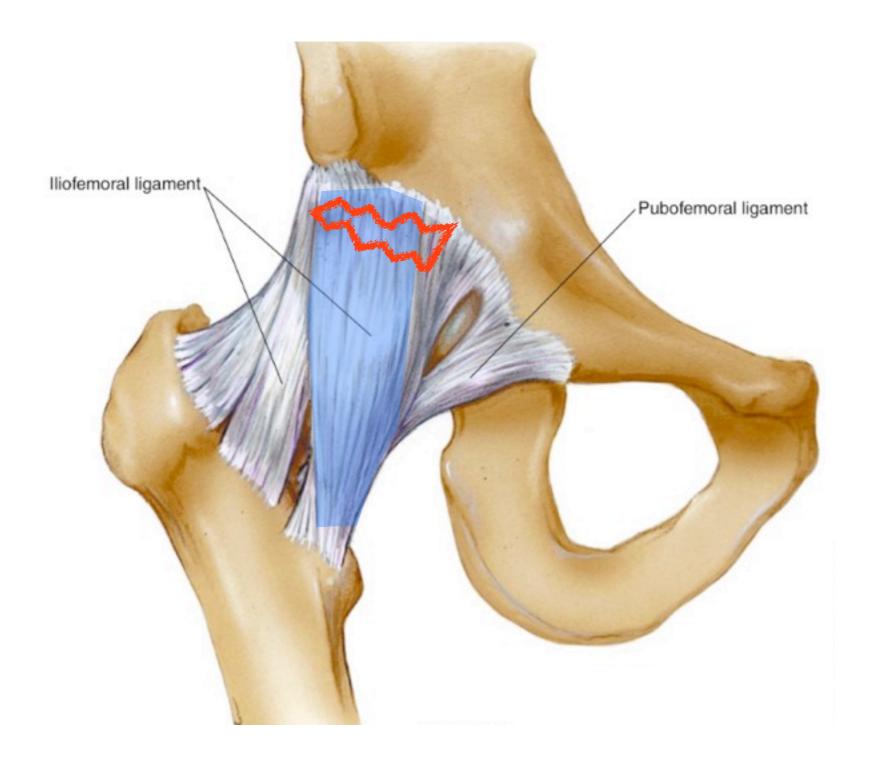
Am J Sports Med January 1987 15 22-29;

imejores resultados!

	GI	G2	G3
reparación	no	si	si
inmovilización	no	3 sem	6 sem

Treatment of the medial collateral ligament injury: II: Structure and function of canine knees in response to differing treatment regimens

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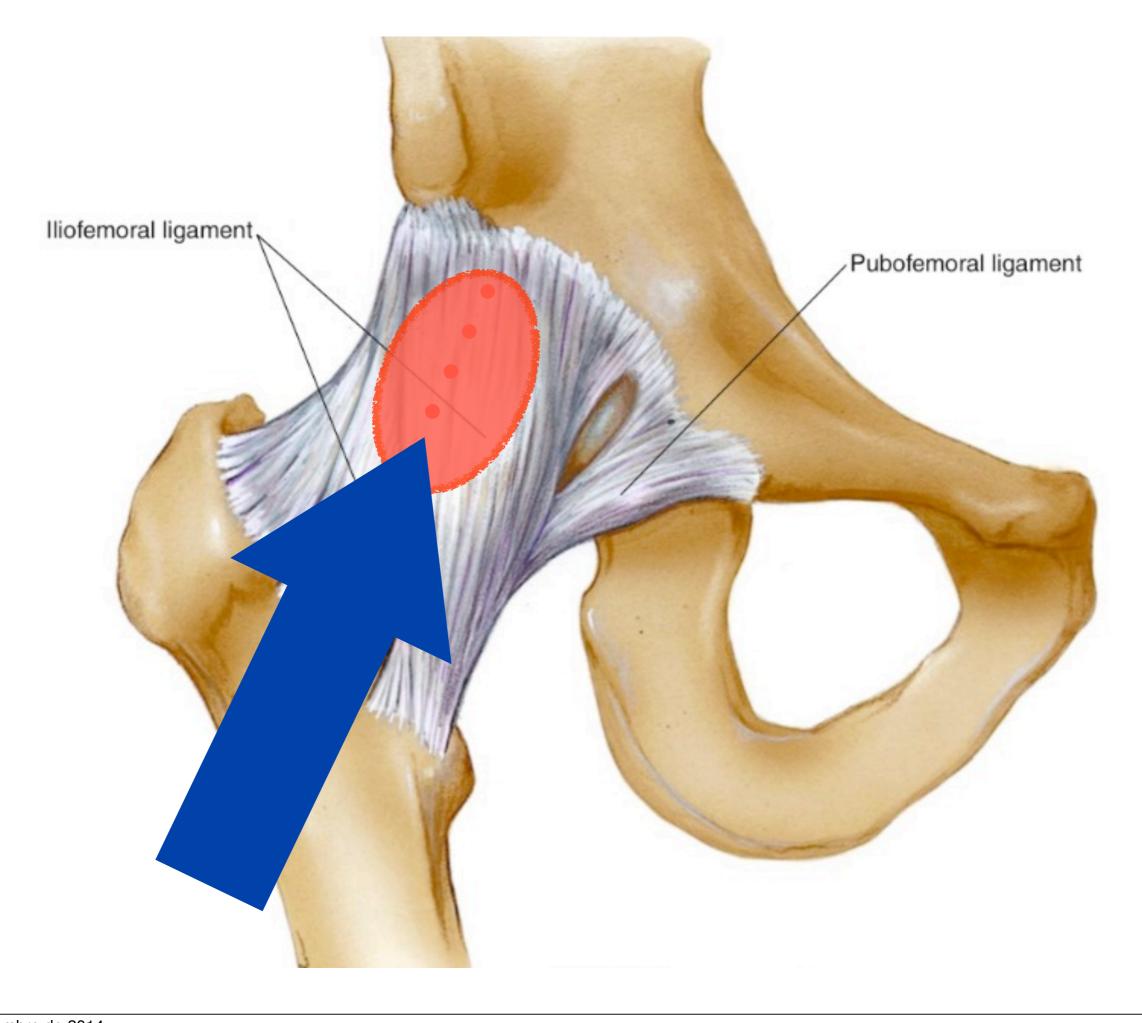
¿la inestabilidad capsular existe?

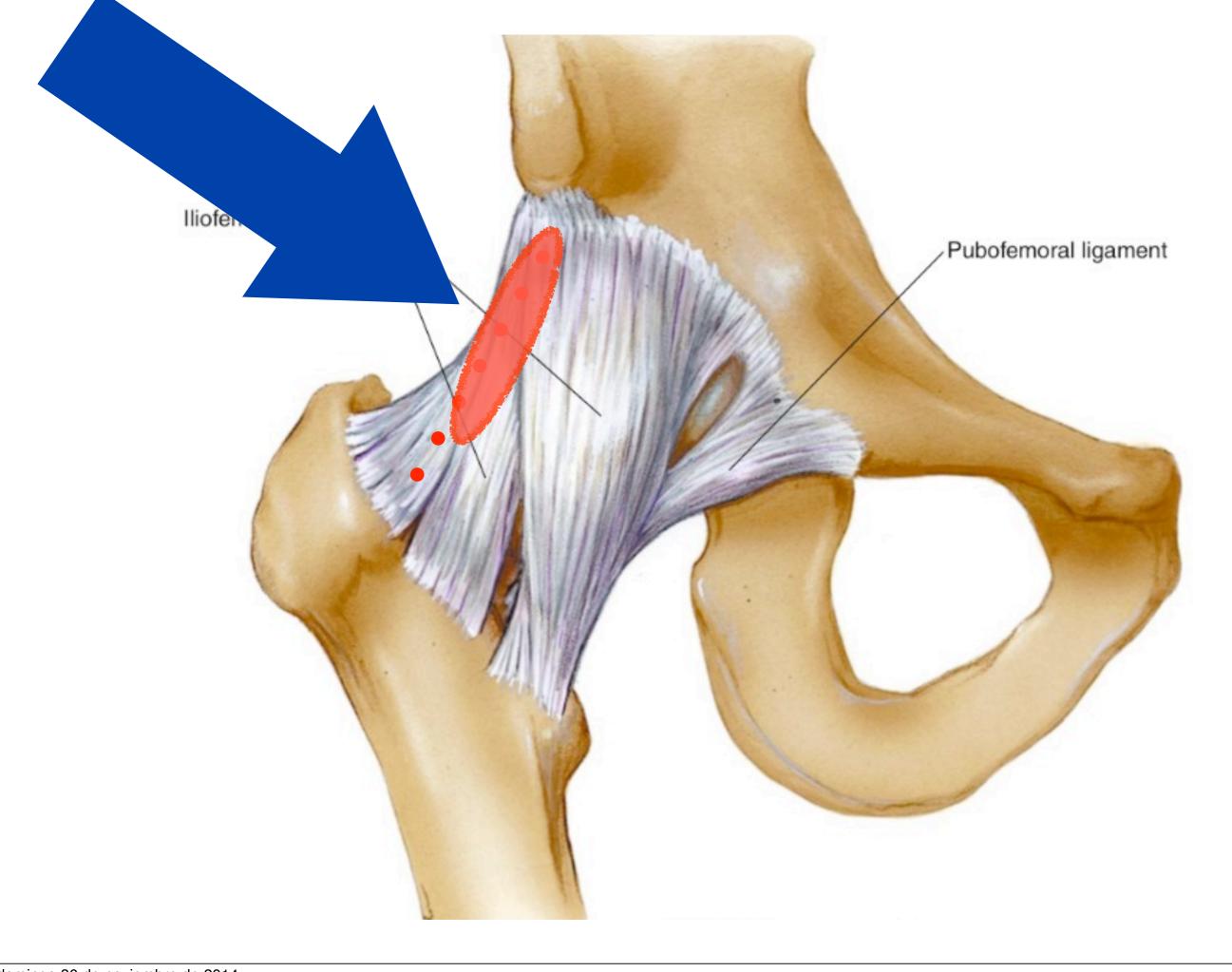
- la capsulotomía, ¿causa inestabilidad?
- la inestabilidad, ¿cuál es su origen?
- entonces... ¿existe?
- y... ¿la bibliografía?



capsulotomía:

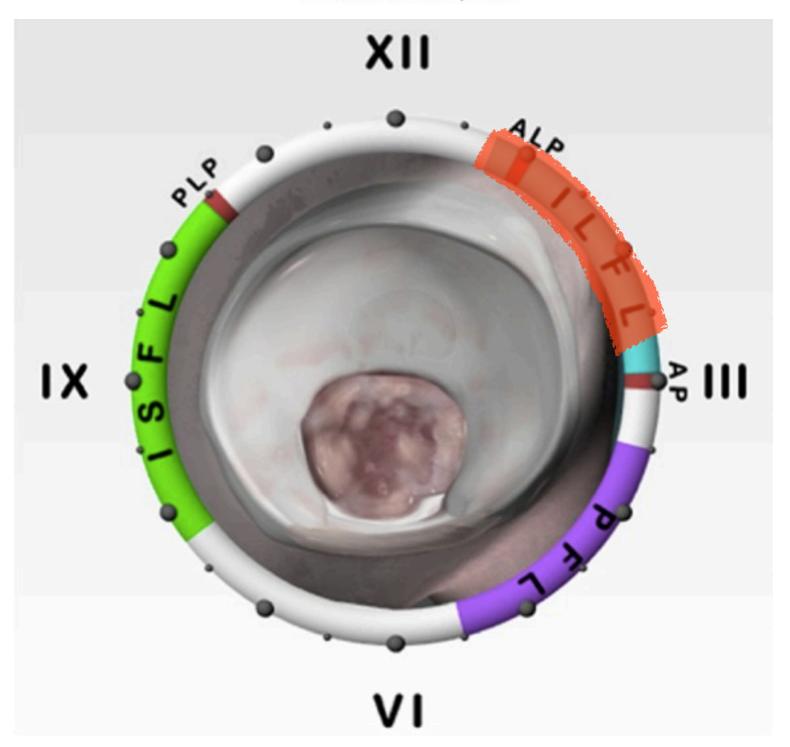
incisión longitudinal más lateral por el portal AL





An Anatomic Arthroscopic Description of the Hip Capsular Ligaments for the Hip Arthroscopist

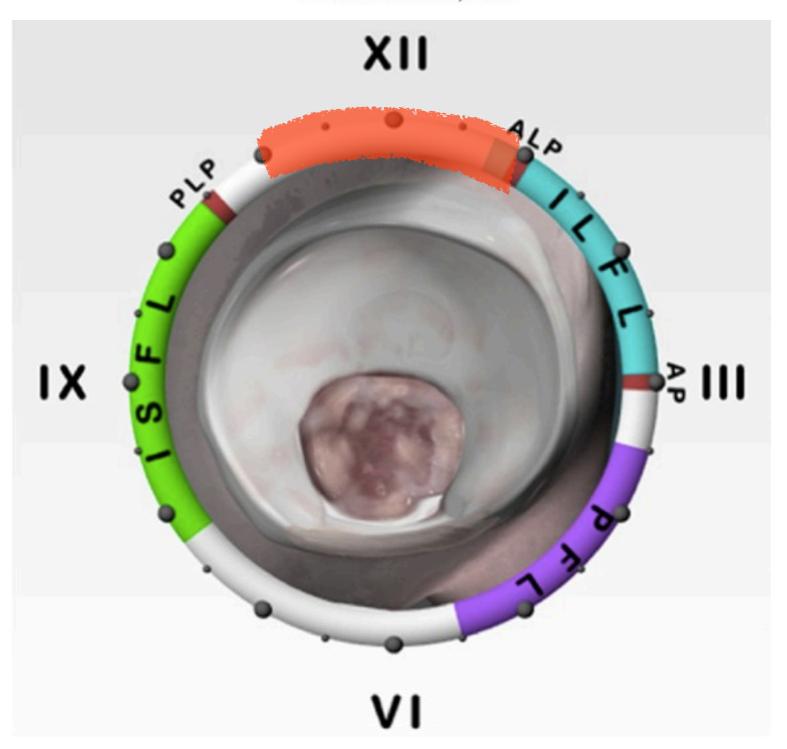
Jessica J. M. Telleria, B.S., Derek P. Lindsey, M.S., Nicholas J. Giori, M.D., Ph.D., and Marc R. Safran, M.D.



Arthroscopy: The Journal of Arthroscopic and Related Surgery, Vol 27, No 5 (May), 2011: pp 628-636

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¿la inestabilidad capsular existe?

- la capsulotomía, ¿causa inestabilidad?
- la inestabilidad, ¿cuál es su origen?
- entonces... ¿existe?
- y... ¿la bibliografía?

Case Report

Acute Iatrogenic Dislocation Following Hip Impingement Arthroscopic Surgery

Dean K. Matsuda, M.D.

Abstract: This is the first case report of an iatrogenic anterior hip dislocation after arthroscopic surgery for femoroacetabular impingement with over 1 year of follow-up. This case report describes the clinical course of a patient with symptomatic cam-pincer femoroacetabular impingement. She underwent arthroscopic rim trimming, labral debridement after a failed attempt at labral refixation from suture cut-through, and femoral head-neck resection osteoplasty. The procedure involved supranormal hip distraction for extraction of an iatrogenic loose body (detached metallic radiofrequency probe tip). The patient had an anterior hip dislocation in the recovery room. Immediate closed reduction under general anesthesia and bracing were performed but failed despite the ability to obtain a concentric but grossly unstable reduction. After 3 failed attempts, a mini-open capsulorrhaphy was performed that successfully restored stability. Her postoperative management and outcome are presented. All of the major static stabilizers of the hip (osseous, labral, and capsuloligamentous) were surgically altered, and a multifactorial causation is proposed. Lessons learned are discussed in hopes of minimizing the occurrence of this rare but dramatic complication. Key Words: Hip—Dislocation—Iatrogenic—Complication—Arthroscopy—Femoroacetabular impingement.

Case Report

Hip Subluxation as a Complication of Arthroscopic Debridement

Youssef Benali, M.D., and Bernd D. Katthagen, Ph.D.

Abstract: Labral lesions are a common indication for hip arthroscopy (HA). We report a case of a 49-year-old woman who underwent HA for a long ventrolateral labral tear and exostosis of the lateral acetabular rim. She also presented with moderate hip dysplasia. The acetabular labrum was resected from the ventral to the lateral aspect; in addition, the exostosis of the lateral acetabular rim was removed. Three months later, the hip joint was unstable and subluxated. According to our literature search, this complication of HA has not yet been reported. This should admonish us to be cautious in performing resection of the labrum and acetabular exostosis especially in patients with hip dysplasia. Because of reduced bony containment of dysplastic hips, the acetabular labrum has a more stabilizing function in dysplastic joints. Therefore, in dysplastic hip joints with extensive labral tears or degeneration, resection of the labrum and acetabular exostosis should be performed carefully and to the most minimal extent. Key Words: Hip arthroscopy—Labral tear—Hip subluxation—Complication—Hip dysplasia—Hip arthroplasty.

Case Report

Catastrophic Failure of Hip Arthroscopy Due to Iatrogenic Instability: Can Partial Division of the Ligamentum Teres and Iliofemoral Ligament Cause Subluxation?

Omer Mei-Dan, M.D., Mark O. McConkey, M.D., and Matthew Brick, M.D.

Abstract: Hip arthroscopy is an evolving surgical tool, and with any new procedure, it is important to learn from the complications encountered. A patient with mild hip dysplasia and a symptomatic labral tear underwent uneventful hip arthroscopy and labral repair including partial debridement of a hypertrophied ligamentum teres. Despite preservation of the labrum, no pincer resection, and a modest capsulotomy, 3 months, subluxation and joint space narrowing were noted. One year, end-stage arthritis was present, requiring total hip replacement. Instability after hip arthroscopy is due to a number of factors, including excessive rim trimming, capsulotomy, overzealous labral resection, or inadequate labral repair. This report emphasizes the importance of the ligamentum teres and small disruptions of the capsule in patients with mild dysplasia.

- mujer
- cadera displásica
- subluxación o necrosis?



HIP

Total dislocation of the hip joint after arthroscopy and ileopsoas tenotomy

Mikael Sansone · Mattias Ahldén · Páll Jónasson · Leif Swärd · Thomas Eriksson · Jon Karlsson

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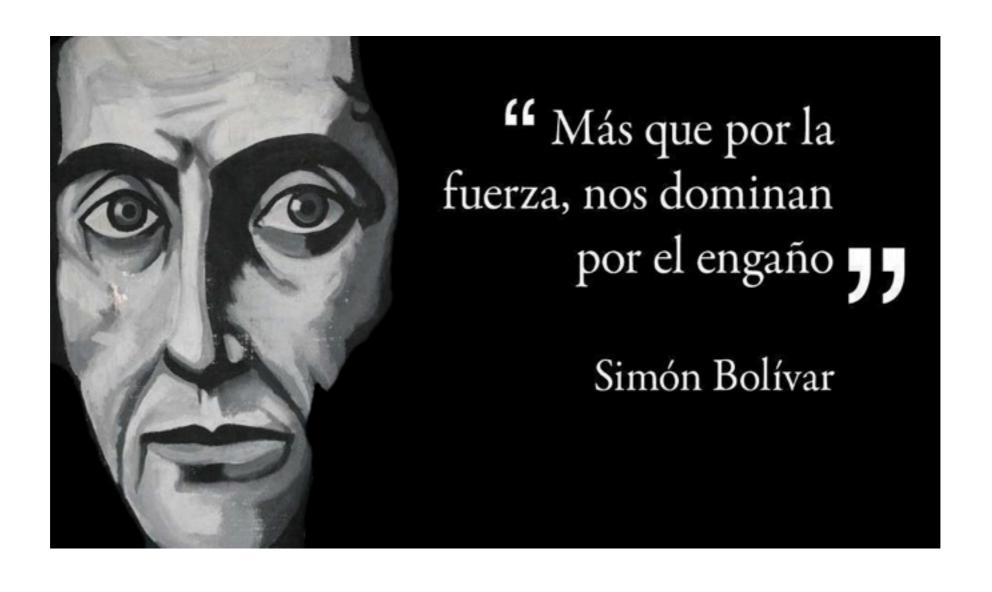
Abstract The hip is a highly stable joint. Non-traumatic dislocation of the hip is extremely uncommon. In this article, we report two cases of non-traumatic hip dislocations following hip arthroscopy. In both cases, capsulotomy and ileopsoas tenotomy had been performed. These cases raise questions about the importance of the natural stabilisers of the hip.

Level of evidence V.

Keywords Hip arthroscopy · Dislocation · Ileopsoas tendon · Complications · Iatrogenic complication referred to us due to residual pain, and soon afterwards, a similar case came to our awareness.

We propose that, in these two cases, sectioning of the anterior soft tissue stabilisers of the hip, including the joint capsule, increased the laxity of the joint, possibly contributing to the dislocation of the hip in both patients.

Case reports



gracias por su atención



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