

ROLE OF ULTRASONOGRAPHY AND MRI
IN DIAGNOSIS OF GLENO HUMERAI
INSTABILITY

Thesis

Submitted For partial fulfillment of
Medicine Degree in Radiodiagnosis

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2009

دور الرنين المغناطيسى والموجات الصوتية فى تشخيص عدم اتزان مفصل الكتف

رسالة مقدمة من

الطبيبة/ نيفين عزت محمد على الليثى
توطئة للحصول على درجة الدكتوراه فى الاشعة التشخيصية

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٢٠٠٩

دور الرنين المغناطيسى والموجات الصوتية فى تشخيص عدم اتزان مفصل الكتف

تم اجراء الدراسة موضوع البحث على ٥٤ مريضاً يعانون من عدم اتزان الكتف تم فحص كل مريض بالموجات الصوتية والرنين المغناطيسى وتم حقن مفصل الكتف فى بعض الحالات بالصبغة. اظهرت النتائج المبدئية الترابط بين الموجات فوق الصوتية والرنين فى تقييم التغيرات الذى تحدث لمفصل الكتف والحالة الاكلينيكية له دور فعال فى تشخيص حالات عدم اتزان. كما ان الحقن الموضعى المباشر بالصبغة كان له دور اضافى فى تقييم انواع عدم الاتزان التى تصيب الجهاز العضلى المفصلى للكتف. تم مقارنة النتائج بالمنظار الجراحى.

الملخص العربى

مفصل الكتف هو مفصل مركب تشريحيا حيث ان ثباته واتزانه يعتمد على اتحاد من بناء عظمى وكذلك بناء من الانسجة الرخوية التى تلتف حول مفصل الكتف. هذه الانسجة الرخوية هى المركب الوترى الغضروفى، محفظة المفصل، العضلات والاورتار حيث انهم يعملون كمثبت ديناميكى وكذلك استايكى ليمنعوا المفصل من تخطى مجال الحركة المثالى. عدم ثبات المفصل الحقى العضى يحتوى على تشخيصات مختلفة ومتعددة ذات مجال عريض من الأمراض المختلفة. انه من المهم فهم التشريح، الأمراض، التاريخ المرضى ، الكشف الطبى وكذلك التقسيم لهذه الأمراض حتى يتسنى تشخيص المرض صحيحا. وحينما نصل الى التشخيص الصحيح بالتالى يتسنى الوصول الى العلاج الصحيح جراحيا أو غير جراحيا.

إن تشخيص عدم ثبات واتزان المفصل الحقى العضى مازال مركب حيث ان التاريخ الاكلينيكى والمرضى لا يكفيان للحصول على التشخيص الدقيق لذلك لابد من وسائل تصويرية تشخيصية يمكن الاعتماد عليها ليس فقط للحصول على التشخيص الصحيح ولكن لتقييم وسائل العلاج المختلفة ايضا.

ان الهدف من هذه الدراسة هو توضيح دور الموجات الصوتية كوسيلة للفحص الجماعى كذلك تقييم الوسائل المتعددة لفحص التصوير بالرنين المغناطيسى لتصوير المفصل ومقارنته بنتائج المنظار الجراحى (القاعدة الذهبية).

ان هذا البحث يحتوى على ٥٤ مريض يعانون اكلينيكيًا من خلع فى مفصل الكتف (فردى أو متكرر)

تم عمل فحص الموجات الصوتية والرنين المغناطيسى لجميع المرضى وتتابع بفحص الرنين المغناطيسى لتصوير المفصل بالحقن الموضعى المباشر بالصبغة لسته واربعون مريض فقط. نتائج هذه الفحوصات تم جمعها ومقارنتها بنتائج المنظار الجراحى.

فى هذا البحث وجد أن:

- الموجات الصوتية يكشف قطع الغضروف الامامى السفلى بنسبه ٩٤% حساسي و٦٦% نوعية.
 - فحص الرنين المغناطيسى يتمتع بحساسية ٧٢% و٧٨% نوعية.
 - فحص الرنين المغناطيسى لتصوير المفصل يتمتع ٧٨% حساسية و١٠٠% نوعية
- وفى نهاية هذا البحث نوصى بعمل فحص الموجات الصوتية اولا كفحص جماعى والاتجاه للرنين المغناطيسى لتصوير المفصل لتقييم حفظة المفصل وكذلك حجم اصابة الاوتار والغضاريف للحصول على التشخيص الصحيح.

Abstract

The study included 54 patients with glenohumeral instability. For every patient; Ultrasonography, MRI were done and intra-articular contrast injection in some cases (MRA) .The preliminary results have shown the role of sonography in monitoring of instability. Correlation between US and MRI and clinical findings may have a role in diagnosing glenohumeral instability. MR arthrography is promisable in defining the type of instability

(Key Words: ultrasonography-MRA-shoulder instability)

Acknowledgement

First and foremost, I feel always indebted to GOD the most kind and the most merciful for blessing my steps in life.

*I wish to express my deepest and ultimate gratitude to Dr. **Dorria Salem**, Professor of Radiodiagnosis, Faculty of Medicine, Cairo University, who suggested the subject and helped me to take the first step. Her kind supervision and parental attitude could not be denied. Also, her continuous guidance and kind encouragement throughout this work upgraded its quality.*

*I wish to express my thanks and deepest gratitude to Dr. **Khalid Shohyab**, professor of orthopedics, Faculty of Medicine, Cairo University. His faithful encouragement, continuous guidance, valuable advices gave me the motive to utilize available resources in order to put this thesis in an acceptable form and supervised, revised this thesis.*

*I'm indebted also to Dr. **Manar Hussein** , for her kind guidance and great help during the practical part of this work. Her continuous advice and follow-up especially throughout the practical part of the work, was a stimulus for its completion..*

*I'm also thankful to all the staff members of the **radiodiagnosis department and orthopedics outpatient clinic & department** , Kasr El Aini Hospoital for their help in referring the patients for me, to their kind help and supervision throughout this work.*

*I'm also feeling grateful for **Cairo Scan Center** for helping me in gathering my cases in this thesis to upgrade radiology techniques to help the clinicains in their diagnoses.*

*I'm also very grateful and thankful for the **fifty four patients** who helped me to bring this thesis out to help all patients in their treatment.*

List of abbreviations

- **ABER** : abduction and external rotation.
- **AC** : acromi-clavicular
- **AIGHL** : Anteroinferior glenohumeral ligament
- **ALPSA** : anterior labrum periosteal sleeve avulsion
- **AMBRIL** : atraumatic multidirectional bilateral
rehabilitation inferior capsular interval closure
- **BLC** : biceps labral complex
- **BHAGL** : Bony humeral avulsion of the
glenohumeral Ligament
- **CHL** : coracohumeral ligament
- **CT** : Computed tomography.
- **FSE** : fast spin echo
- **GHjoint** : glenohumeral joint
- **GL** : glenoid labrum
- **GLAD** : glenoid labrum articular disruption
- **HAGL** : humeral avulsion of the glenohumeral
Ligament
- **HH** : humeral head
- **IGL** : inferior glenohumeral ligament.
- **IGL C** : inferior glenohumeral ligament complex.
- **IGHL** : inferior glenohumeral ligament.
- **IGHLC** : inferior glenohumeral ligament complex
- **MDI** : multidirectional instability

- **MGHL** : middle glenohumeral ligament
- **MRI** : Magnetic resonance imaging.
- **MRA** : Magnetic resonance arthrography
- **POLPSA** : Posterior labrocapsular periosteal sleeve
Avulsion
- **RCT** : Rotator cuff tendon.
- **SGHL** : superior glenohumeral ligament
- **SLAP** : superior labrum anterior to posterior.
- **STIR** : Short Time Inversion recovery
- **TE** : time of echo
- **THL** : transhumeral ligament
- **TR** : time of repetition
- **TUBS** : traumatic unidirectional with Bankart
lesion surgical interventional
- **US** : Ultrasound.

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