Lateral Epicondylalgia: Current Concepts and Study Prospects

Thuy ("Twee") Tran
Occupational (Hand)Therapist
PhD Candidate
BSc OT (Hons)
Outline

• Background Information
• Clinical Presentation
• Pathology
• Assessment
• Conservative Treatments
• Research at Hand Works
Ryan & Ben
Background

• Affects 1-3 % of general population
• Average duration: 6 – 24 months
• Risk factors for developing LE
  o Handling tools over 1kg repetitively
  o Handling loads heavier than 20kg for more than 10 times a day
  o Demanding grip forces
  o Vibrating tools
Anatomy
Clinical Presentation

• Pain
• Reduced ROM
• Reduced grip strength
• Swelling
• Reduce function
Pathology

Epicondylitis vs Epicondylalgia

**Acute**
(<6 weeks)

**Chronic**
(>6 weeks)
Clinical Tests for Pain

Mill’s Test  Cozen’s Test  Maudsley’s Test
Diagnostic Imaging

X-Rays

Ultrasound

MRI
Conservative Rx

- Physical Therapies
- Wrist orthosis and counterforce braces
- Activity modification and functional education
- Corticosteroid injections
- Platelet-rich plasma injections
- Autogolous blood injections
Orthoses

• Inconclusive evidence to show effectiveness
• Wrist orthoses provides more pain relief than counterforce brace
• Non-invasive treatment option
Physical Therapies

- InterX Neurostimulation
- Deep transverse friction massage
- Concentric and Eccentric exercises
Stretches and strengthening exercises
“A New Exercise For Tennis Elbow that Works!”

Corticosteroid Injections

• Insufficient evidence to support effectiveness
• Short term benefits for pain, global improvement and grip strength (≤6 weeks)
Autogolous Blood Injections

• Recent treatment option

• Provide cellular and humoral mediators

• Need at least 2 injections
Platelet -Rich Plasma
Activity Modification and Functional Education

• Rest
• Activity Modification
• Risk factors
• Ergonomic modification
Conservative Rx

- Corticosteroid injections
- Activity modification and functional education
- Physical Therapies
- Wrist orthosis and counterforce braces
- Autologous blood injections
- Platelet-rich plasma injections
- Workplace based assessment and intervention?
“What is the impact of adding a workplace-based hand therapy component on the return to work outcomes of injured workers with LE compared a usual clinic-based hand therapy intervention only?”
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<th>Injury attributes</th>
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<td>Trunk</td>
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<td><strong>Total</strong></td>
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<td><strong>17,538</strong></td>
<td><strong>18,271</strong></td>
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</table>

4.3.0 Number of lost time claims by bodily location of injury or disease

% LE patients at Hand Works 2014

- Private
- DVA
- EPC
- WC
Study Aims

1. Impact of time, costs and durable return to work status associated with Worker’s Compensation System

2. Impact on pain level, grip strength and function
Study 1
- Determine current practice trends of medical practitioners and hand therapists in the treatment of LE.

Study 2
- Develop a standardised treatment protocol for LE patients.
- Determine the efficacy of workplace Rx involvement.

Study 3
- Identify positive and negative factors related to clinic-based vs. workplace-based hand therapy Rx
- Deeper understanding for hand therapists
Significance

Worker’s Compensation System

- Injured Worker
- Employer
- Medical Practitioner
- Insurance Case Manager
- Hand Specialist
- Vocational Rehab Providers

Social Environment

Physical Environment
Ryan & Ben
Conclusion

• No long term benefits have been found with conservative methods
  o CSI provide short term improvement in symptom
  o No significant evidence on the effectiveness of various orthoses
  o No level 1 evidence to show effectiveness of ABI and PRP

• Workplace-based interventions may be of benefit

• OT’s have a bigger role in the management of LE
Questions?
Contact Details

Thuy (“Twee”) Tran
Occupational (Hand) Therapist
PhD Candidate
Email: thuy.tran@handworks.net.au
1300 887 798
Reference List

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Coff, L, Massy-Westropp, N & Caragianis, S. (2009). Randomised controlled trial of a new electrical modality (InterX) and soft tissue massage, stretching, ultrasound and exercise for treating Lateral Epicondylitis. Hand Therapy, 14: 2, 46


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