What’s New in Foot and Ankle Surgery?

April 20th, 2013

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Symposium Outline

- Introduction
- Total Ankle Arthroplasty
- Syndesmotic Injuries
- Achilles Tendon Ruptures
- Talar Osteochondral Lesions
Disclosure

• Reviewer:
  – Foot and Ankle International
  – Techniques in Foot and Ankle Surgery
  – JBJS –A

• Owner: www.footeducation.com
“the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.”

*Sackett et al. BMJ 1996*
Traditionally, dogma has ruled the education of physicians ......
Progress with EBM

• Last 10-15 years
• Improved knowledge and understanding ……
but, still a long way to go
Proactive:
• Create Guidelines rather than have them imposed from outside agencies (Insurance, etc.)

Formed
• Guidelines Oversight Committee
• Evidence-Based Practice Committee
AAOS Guidelines (14)

- Prevention of Orthopaedic Implant infection in Patients Undergoing Dental Procedures
- Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty
- The Treatment of Pediatric Supracondylar Humerus Fractures
- The Diagnosis and Treatment of Osteochondritis Dissecans
- Optimizing the Management of Rotator Cuff Problems
- Treatment of Symptomatic Osteoporotic Compression Fractures
- Diagnosis of Periprosthetic Joint Infections of the Hip and Knee
- Diagnosis and Treatment of Acute Achilles Tendon Rupture
- Treatment of Distal Radius Fractures
- Treatment of Glenohumeral Joint Osteoarthritis
- Treatment of Pediatric Diaphyseal Femur Fractures
- Treatment of Osteoarthritis of the Knee
- Treatment of Carpal Tunnel Syndrome
- Diagnosis of Carpal Tunnel Syndrome
AAOS Guidelines

Problems:

• Available literature often did not support robust guidelines
  – little if any high quality evidence for many conditions
• Disseminating of information
• Actually impacting practice
AAOS Guidelines

New Directions

• New Evidence-Based Quality & Value Committee
  – Guidelines and Technology Oversight combined with Evidence-Based Practice Committee

• More Guidelines …but larger, more general topics with a multi-disciplinary bent
  – Ex. Hip Fracture

• AUC (Appropriate Use Criteria Committee)
  – Based on marriage of EBM & Expertise/experience
  – Distal radius AUCs recently approved
Evidence-Based Medicine in Foot and Ankle Surgery
A Survey of Foot Deformities in H.K.

From the Orthopaedic and Traumatic Unit, Department of Surgery, University of Hong Kong, Hong Kong

ently and develop in people who have never worn shoes. However, we believe that foot deformities are of recent origin in the history of man, dating back only to the introduction of footwear.
A Comparison of Foot Forms Among the Non-Shoe and Shoe-Wearing Chinese Population

BY LAM SIM-FOOK, M.B., B.S., AND A. R. HODGSON, M.B., CH.B., F.R.C.S. (EDIN.),
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This investigation was stimulated by statements that foot deformities are hereditary and develop in people who have never worn shoes². However, we believe that foot deformities are of recent origin in the history of man, dating back only to the introduction of footwear. The only deformity of the feet that we can find in the skeletons of people who lived in the Stone Age is the bunion.
Levels of evidence in foot and ankle surgery literature: progress from 2000 to 2010?

METHODS:

• Levels of evidence in articles published in the foot and ankle literature 2000, 2005, and 2010
• Foot & Ankle International, Foot and Ankle Surgery, JBJS-A (Foot), JBJS-B (Foot) articles were analyzed.
• Articles were ranked by a five-point level-of-evidence scale, according to guidelines from the Centre for Evidence-Based Medicine.
Levels of evidence in foot and ankle surgery literature: progress from 2000 to 2010?

RESULTS:

• 720 articles
• Between 2000 and 2010, the percentage of high levels of evidence (Levels I and II) increased (5.2% to 10.3%)
• The most frequent type of study was therapeutic.
• JBJS-A - highest proportion of high levels of evidence.

CONCLUSION:

• There has been a trend toward higher levels of evidence in foot and ankle surgery literature over a decade, but the differences did not reach significance.
AAOS Achilles Rupture Guidelines

Feb 2010

• 16 Guidelines
  – Consensus (2)
  – Inconclusive (8)
  – Limited (4)
  – Moderate (2)

• http://www.aaos.org/research/guidelines/atrsummary.pdf
AAOS Ankle Arthritis Guidelines Work Group

- Convened 2009
- Extensive Lit Review (>6400 articles)
- 44 met the inclusion criteria
  - (Level IV Retrospective case series –excluded)
- 2010 Reconvened –No meaningful conclusions
- No Ankle Arthritis Guidelines
Foot and Ankle Research: Challenges

- Many conditions / Many procedures
  “Common Procedures are uncommon”
- Different operations for the same condition
  “Comparing Apples to Oranges”
- Outcome rating scale: limited
- Few Multi-center trials
Foot and Ankle Research: Solutions

• Perform better Research!!

• Develop better outcome tools

• Multi-centered trials
Foot and Ankle

- Existing Research may be limited, but..
- Still there is much to be gleaned
- What is “Best available evidence?”
- Apply EBM to existing research to influence how we practice
Symposium Outline

• Introduction

David Thordarson MD (Cedar Sinai)
• Total Ankle Arthroplasty

Ken Hunt MD (Stanford University)
• Syndesmotic Injuries

Tim Charlton MD (USC)
• Achilles Tendon Ruptures

Glenn Pfeffer MD (Cedar Sinai)
• Talar Osteochondral Lesions