UPDATE
FRATTURE – LUSSAZIONI LISFRANC

QUANDO E COME L'ORIF

Ciro VILLANI – Pietro PERSIANI

Alessandro FORMICA – Filippo Maria RANALDI

Roma, 21 ottobre 2016

10'

Success
TIME TO UPDATE

FRATTURE – LUSSAZIONI LISFRANC

QUANDO

COME

QUANDO

TIMING

DIAGNOSTICO
e
CHIRURGICO

QUANDO

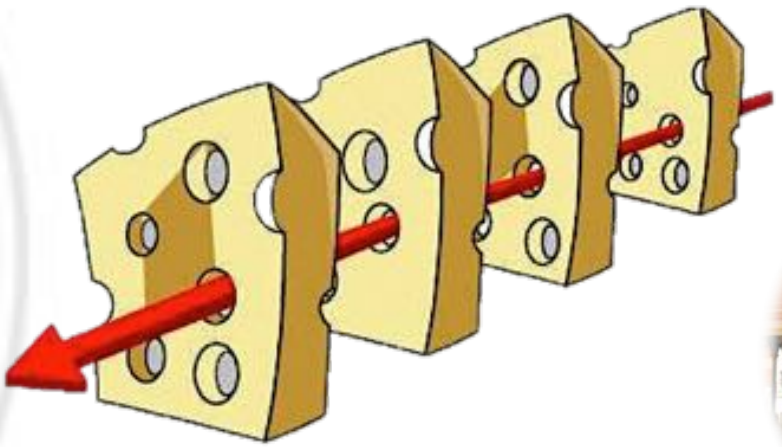
TIMING DIAGNOSTICO

INAPPROPRIATE

TIMING DIAGNOSTICO

SCHEMA DI REASON

IMPREVISTO



INCIDENTE

The Journal of Emergency Medicine
Official Journal of American Academy of Emergency Medicine

Perron AD, Brady WJ, Keats TE.

ORTHOPEDIC PITFALLS IN THE ED

Am J Emerg Med. 2001 Jan. 19(1):71-5

FACILE DA MANCARE
DIFFICILE NON FARNE UN DRAMMA

"…Easy to Miss, Hard to Get Over…"

Mark Hardy, LAS VEGAS, NV - February 12, 2013

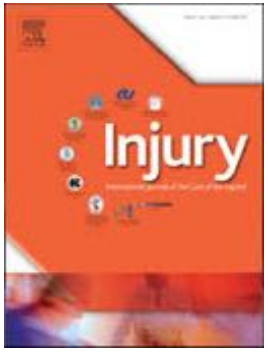
American College of Foot and Ankle Surgeons®
Proven leaders. Lifelong learners. Changing lives.

IN POLITRAUMA
30% OF LISFRANC INJURIES ARE MISSED AT INITIAL DIAGNOSIS

E.C.M.
Educazione Medica Continua

LISFRANC INJURY: HOW FREQUENTLY DOES IT GET MISSED? AND HOW CAN WE IMPROVE?

SHERIEF T et al ; INJURY. 2007 JUL. 38(7):856-60



19% FALSI NEGATIVI

MA ANCHE….

TIMING CHIRURGICO

GUARDA E RISPETTA I TESSUTI MOLLI

TRAUMI CON MINIMA TUMEFAZIONE E LUSSAZIONI VANNO TRATTATI IL PRIMA POSSIBILE

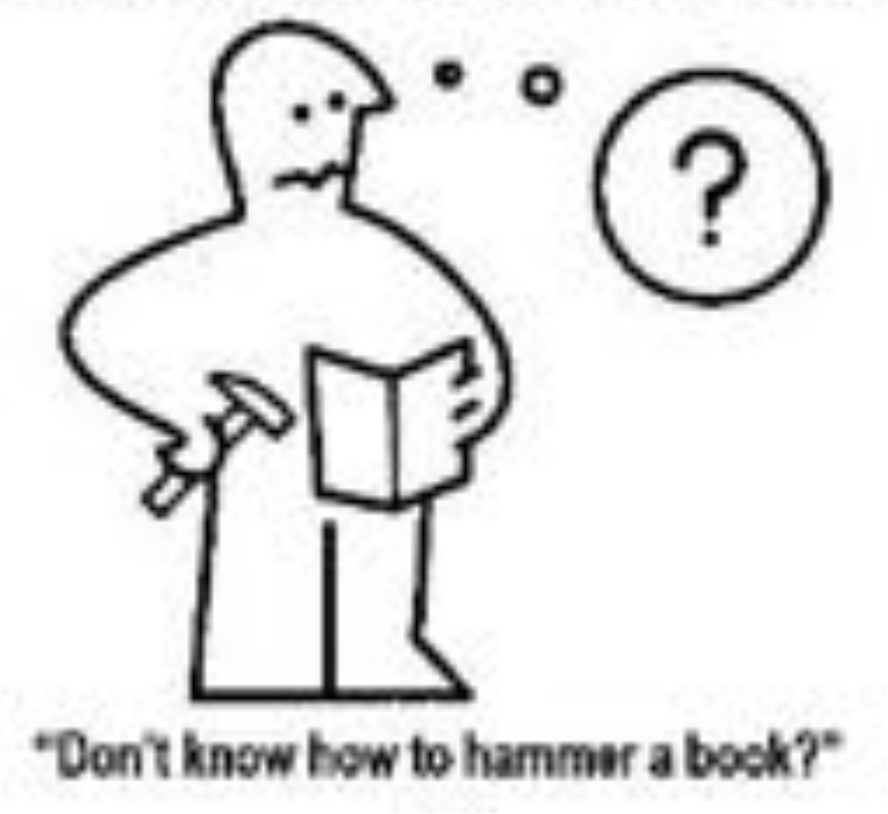
SE IMPORTANTE SOFFERENZA DEI TESSUTI MOLLI
IL TRATTAMENTO CHIRURGICO VA PROCRASTINATO
(UNICA ECCEZIONE:SDR COMPARTIMENTALE)

E.C.M.
Educazione Medica Continua

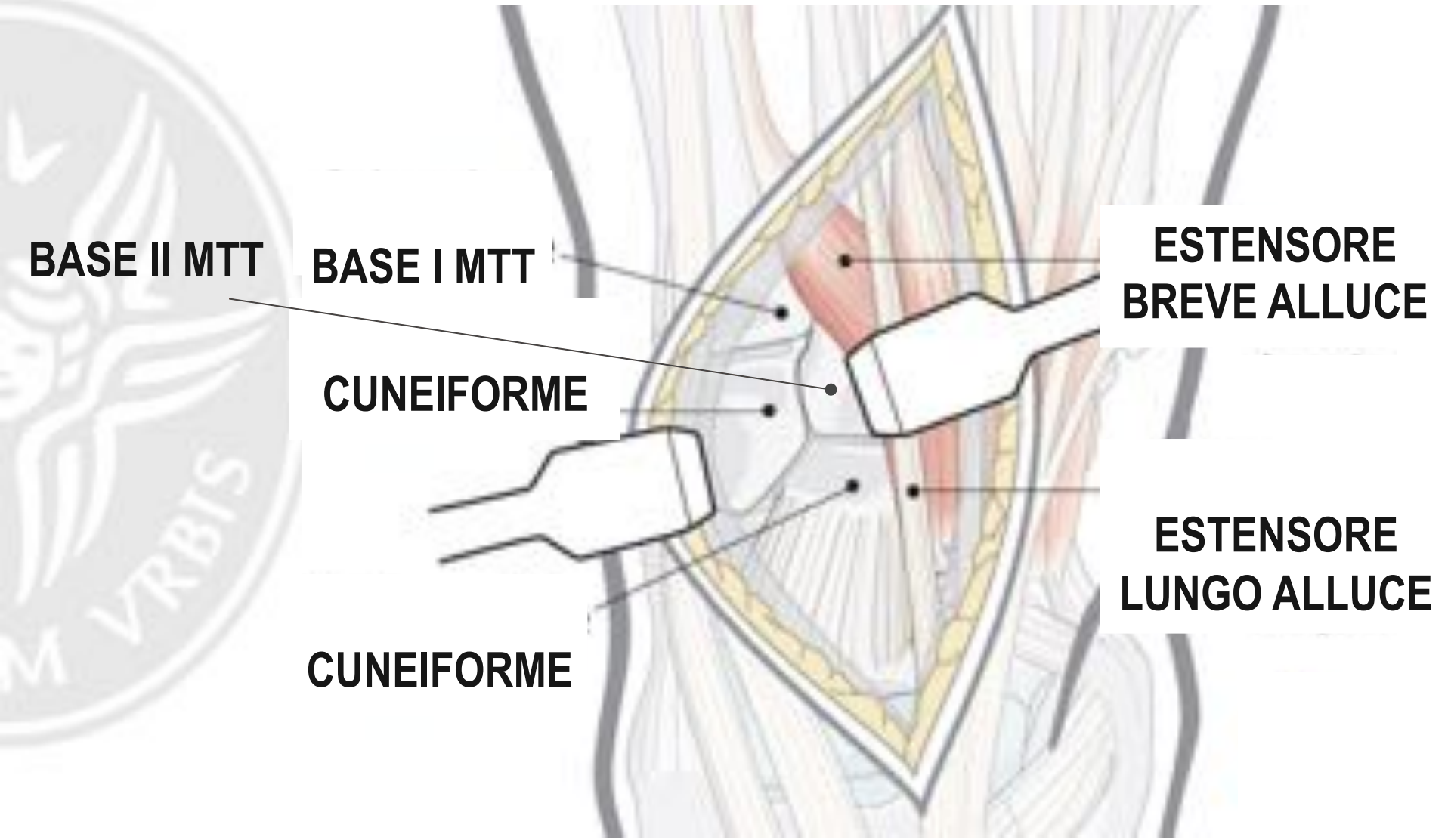
COME

QUALE ACCESSO

QUALE SINTESI



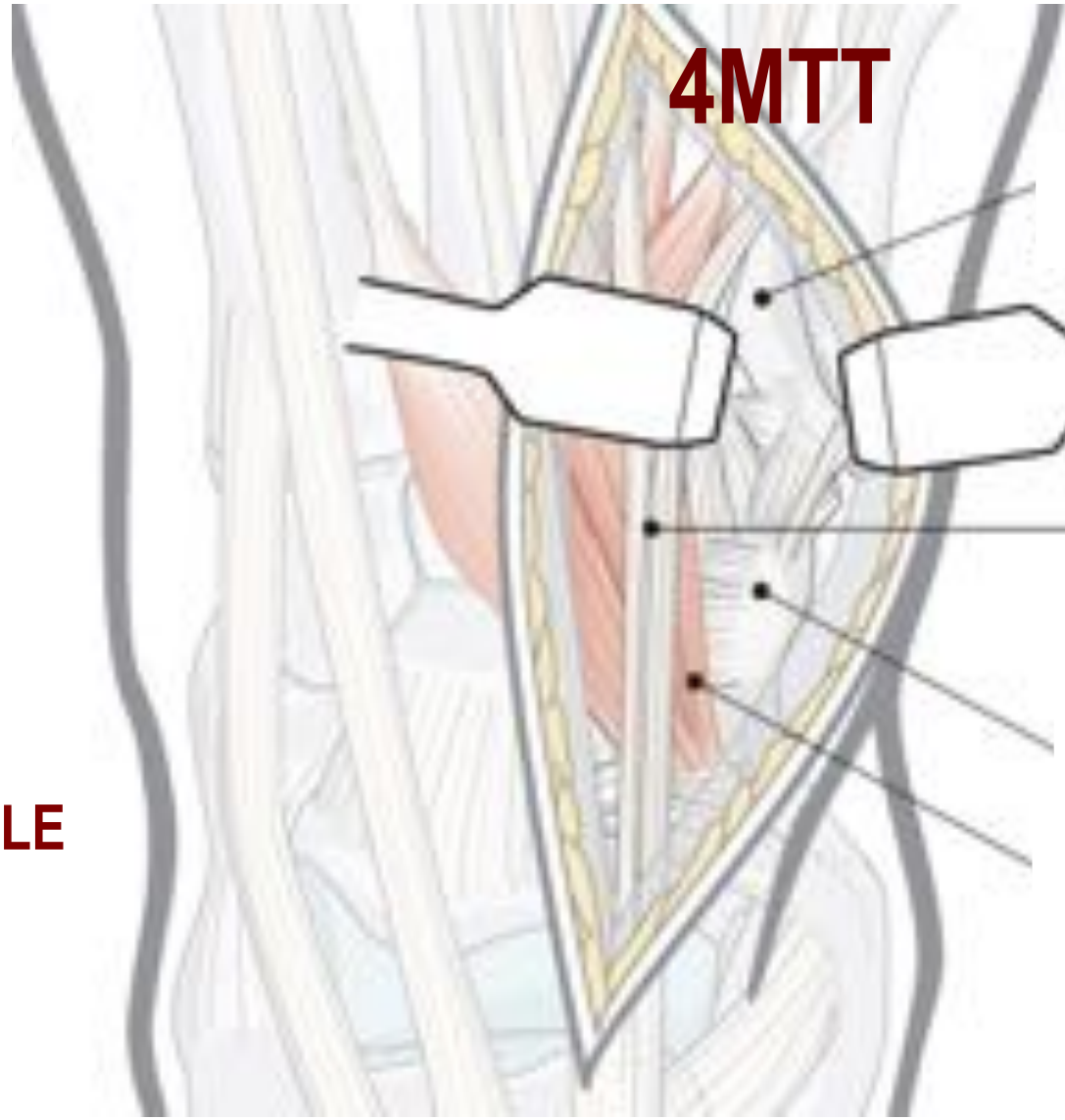
COME PRIMO ACCESSO DORSOMEDIALE



ACCESO DORSOMEDIALE

SPESSO SUFFICIENTE

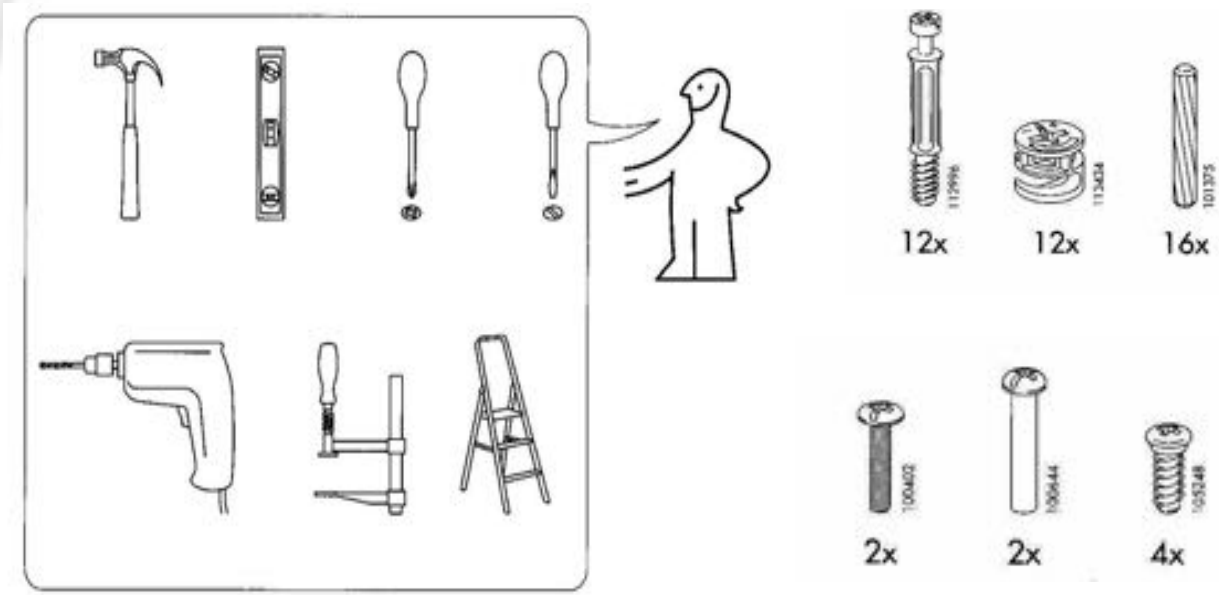
COME SECONDO ACCESSO DORSOMEDIALE



PONTE DI PELLE AMPIO

PINZA DA RIDUZIONE

QUALE SINTESI



CRIF (MINIINVASIVE)

Dario Perugia · Attilio Basile · Alberto Battaglia
Marcello Stopponi
Angelo Ugo Minniti De Simeonibus

Fracture dislocations of Lisfranc's joint treated with closed reduction and percutaneous fixation

VALIDE MA IN CASI SELEZIONATI

RIDUZIONE ANATOMICA DIFFICILE

AB NON SEMPRE ATTENDIBILE

(LA PROIEZIONE PEGGIORE È QUELLA REALE..)

SE FILI DI K, LA LORO RIMOZIONE NON COINCIDE CON LA GUARIGIONE (% PERDITA RIDUZIONE)

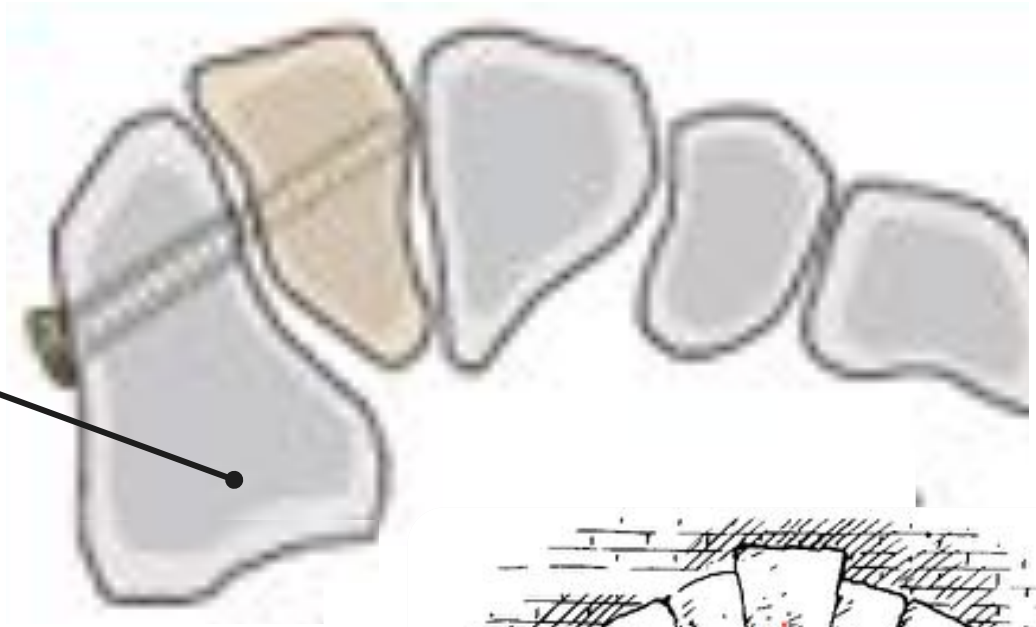
ORIF GOLD STANDARD

COME

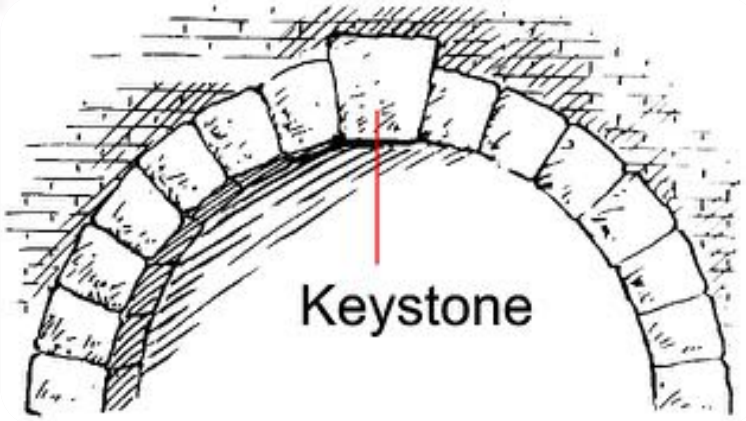
1) RIDURRE LA BASE DEL I MTT

COME

2) RIDURRE LA BASE DEL II MTT (AL CENTRO DELL'ARCO ETRUSCO) 1 o 2 VITI



CUNEIFORME MEDIALE



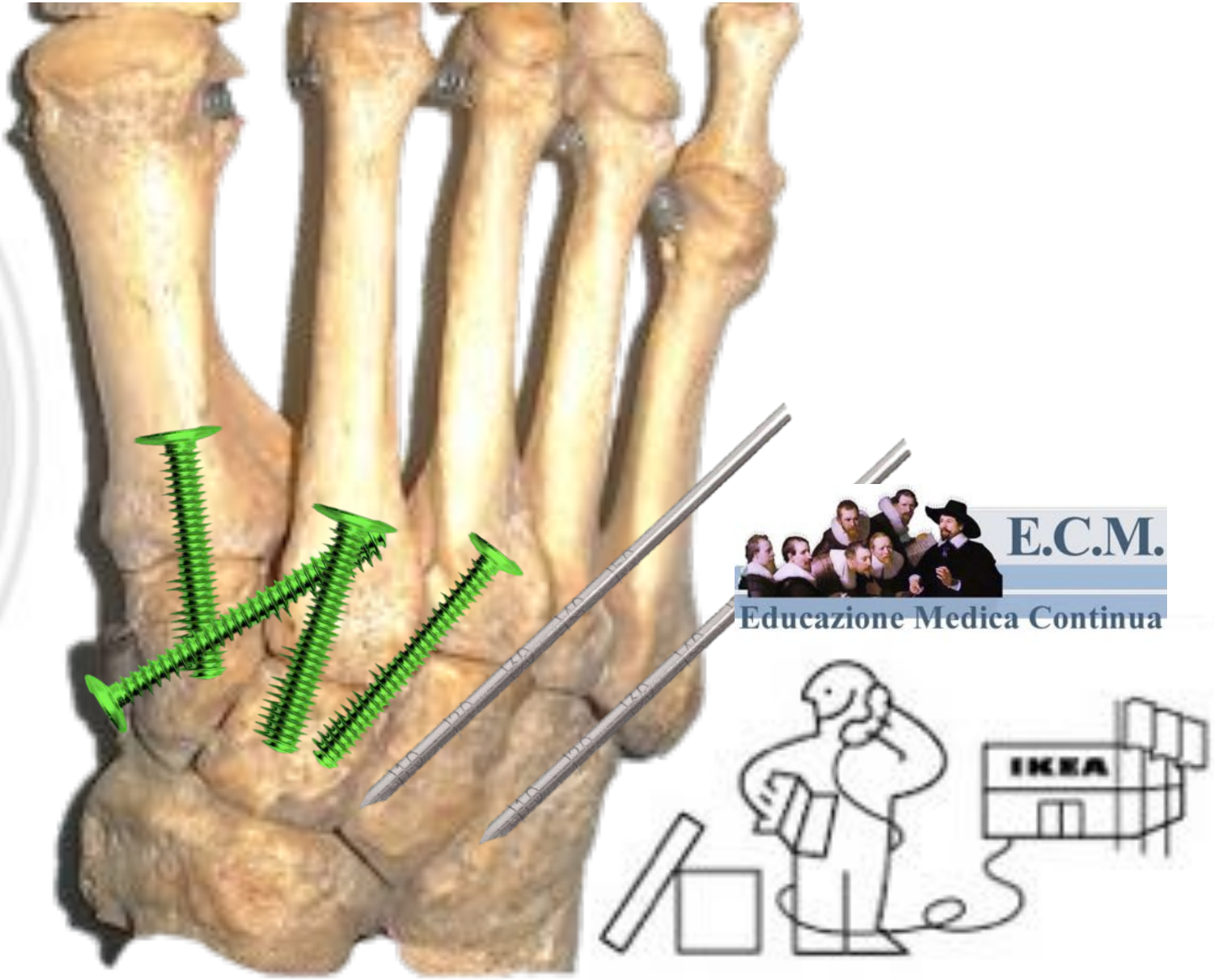
VITI CANNULATE (ROTTURA)

COME

3) RIDURRE 3 MTT

PINZA DA RIDUZIONE

RICAPITOLANDO …



2004 - 2012

COTUR – S.GIOVANNI

71 PAZIENTI

(Meyerson A18-B32-C21)

78,8% DIAGNOSI IN PS

21,1% RITARDO DI 18GG (93% POLITRAUMI…)

CRIF 47,5% - ORIF 52,5%

FOLLOW UP DI 3 AA - AOSAF SCORE e RDX

ACTA ORTHOPÆDICA BELGICA

FRACTURE AND DISLOCATIONS OF THE LISFRANC TARSO-METATARSAL ARTICULATION: OUTCOME RELATED TO TIMING AND CHOICE OF TREATMENT

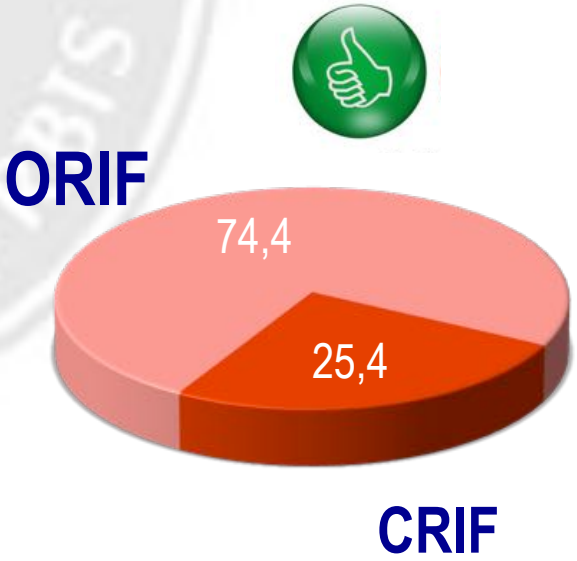
PERSIANI P., FORMICA A., VILLANI C. et al. 2016 IN PRESS

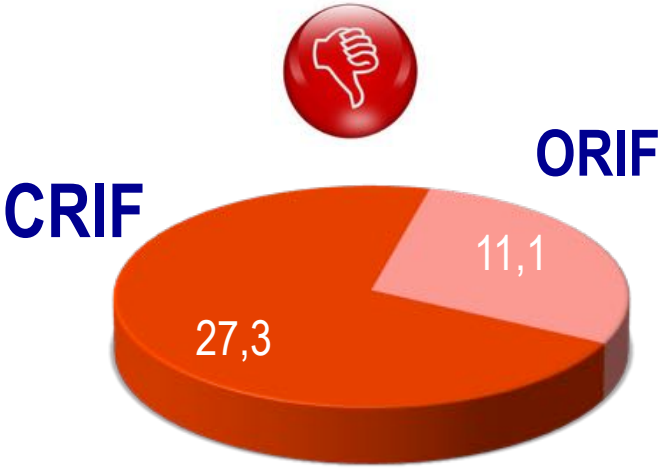
TIMING vs OUTCOME

$p < 0.05$

41,7 % PAZ CON AOSAF PIU' BASSO
QUELLI CON RITARDO NELLA DIAGNOSI
INDIPENDENTEMENTE
DALLA SINTESI E DALLA QUALITA' DELLA RIDUZONE

TRATTAMENTO vs OUTCOME AOSAF





$p < 0.05$

QUALITA' RIDUZIONE vs OUTCOME

AOSAF x 89

SPAZIO I-II MTT <4mm

media 2,9 mm (1,8 mm – 3,9mm)

ANGOLO TMTT <10°

media 5° (0° - 9°)

63,6 % PERDITE DI RIDUZIONE CRIF (FILI DI K)

ASSOCIAZIONE NON SIGNIFICATIVA

TIPO LESIONE vs OUTCOME

MECCANISMO TRAUMATICO vs OUTCOME

DEGENERAZIONE vs TRATTAMENTO

...and this is where we put the non-significant results…

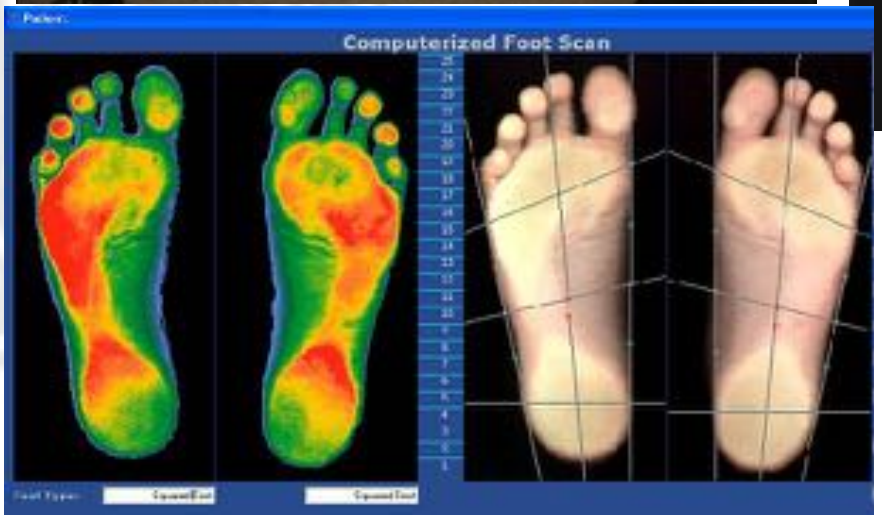
CASO 1

LUSSAZIONE DORSALE

CASO 1

CLINICA /RX /PODOSCOPIA A 3 ANNI

VITI RIMOSSE A 4 MESI



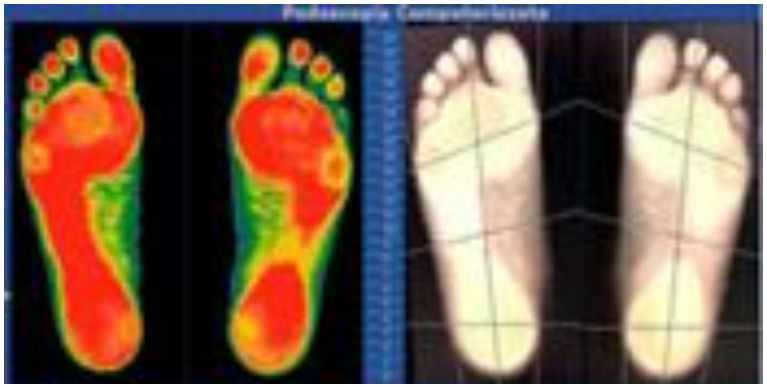
CASO 2

LUSSAZIONE
DISTACCO BASE 2 MTT (FLECK SIGN)

CASO 2

CLINICA /RX / PODOSCOPIA A 3 ANNI (VITI RIMOSSE A 3 MESI)

INIZIALI SEGNI DEGENERATIVI NO DOLORE, ALTERAZIONE APPOGGIO



CONCLUSIONI

SI PROTOCOLLI

NO LINEE GUIDA

NO REVISIONI A LUNGO TERMINE

NO METAANALISI

(SU AMPIE CASISTICHE OMOGENEE)

DI CONSEGUENZA …

SEVERAL CLASSIFICATION SYSTEMS HAVE BEEN PROMULGATED TO LISFRANC'S INJURIES, ALTHOUGH NONE OF THEM HAS EMERGED AS A STRONG PROGNOSTIC INDICATOR OF CLINICAL OUTCOME

CURRENT CONCEPTS REVIEW: LISFRANC INJURIES
Desmond EA, Chou LB. Foot Ankle Int. 2006 Aug;27(8):653-60.

CONCLUSIONI

TIMING

PRONTA DIAGNOSI e RISPETTO TESSUTI MOLLI

ACCURATEZZA DELLA RIDUZIONE

CONCLUSIONI

PubMed
National Library of Medicine NLM

ORIF
PREFERIBILE ALLA CRIF

VITI
PREFERIBILI AI FILI DI K

CONCLUSIONI

ORIF

RIDUZIONE ANATOMICA

SINTESI AFFIDABILE

CON LA GIUSTA SEQUENZA

CONCLUSIONI

… E LA RIMOZIONE ??

.. 3 MESI ..

PERDITA RIDUZIONE

ALGODISTROFIA

CONCLUSIONI

ORIF

NON ESCLUDE IL RISCHIO DI DEGENERAZIONE ARTROSICA

? ARTRODESI D'EMBLEE ?

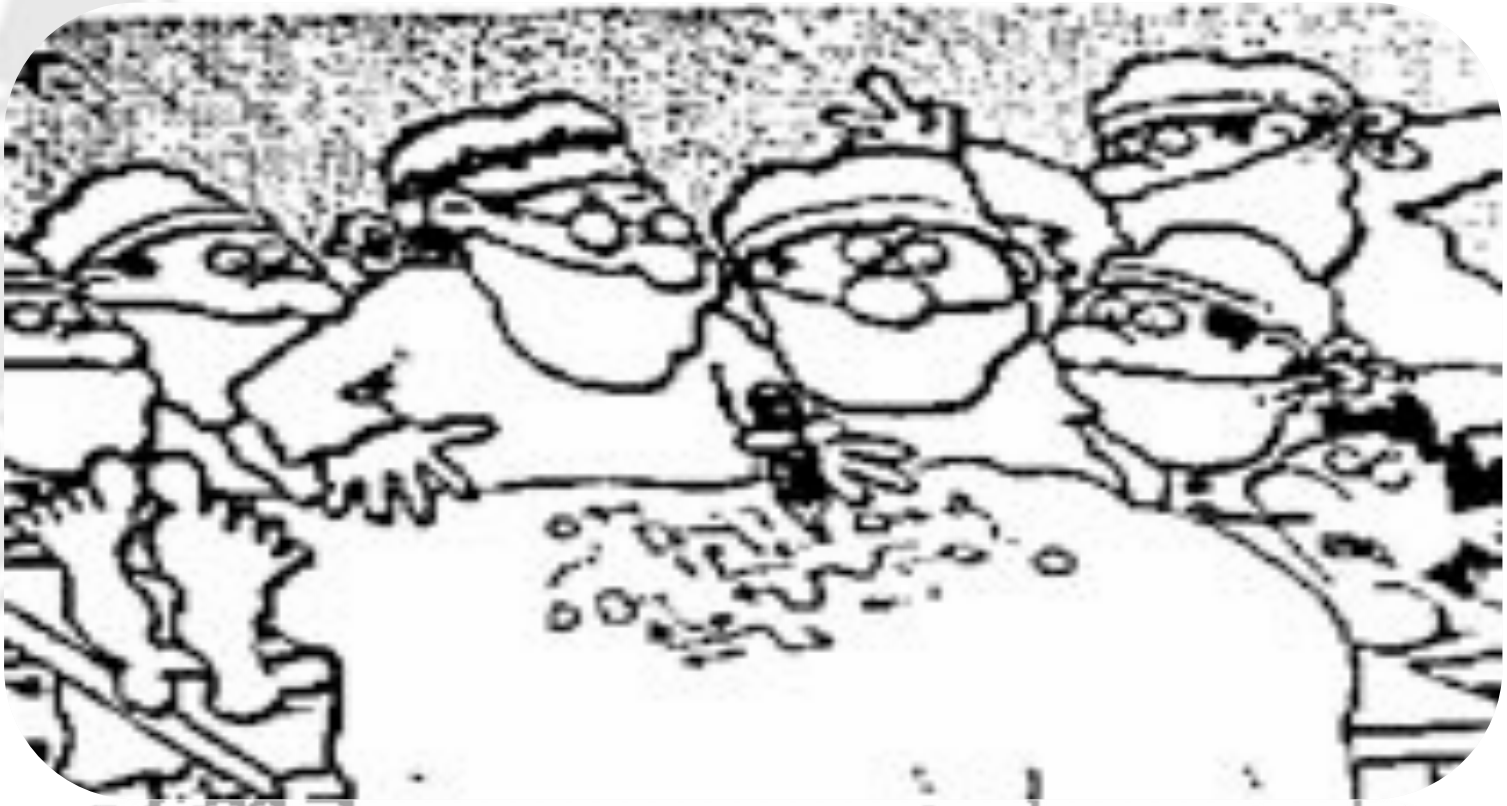
Arthrodesis Versus ORIF for Lisfranc Fractures

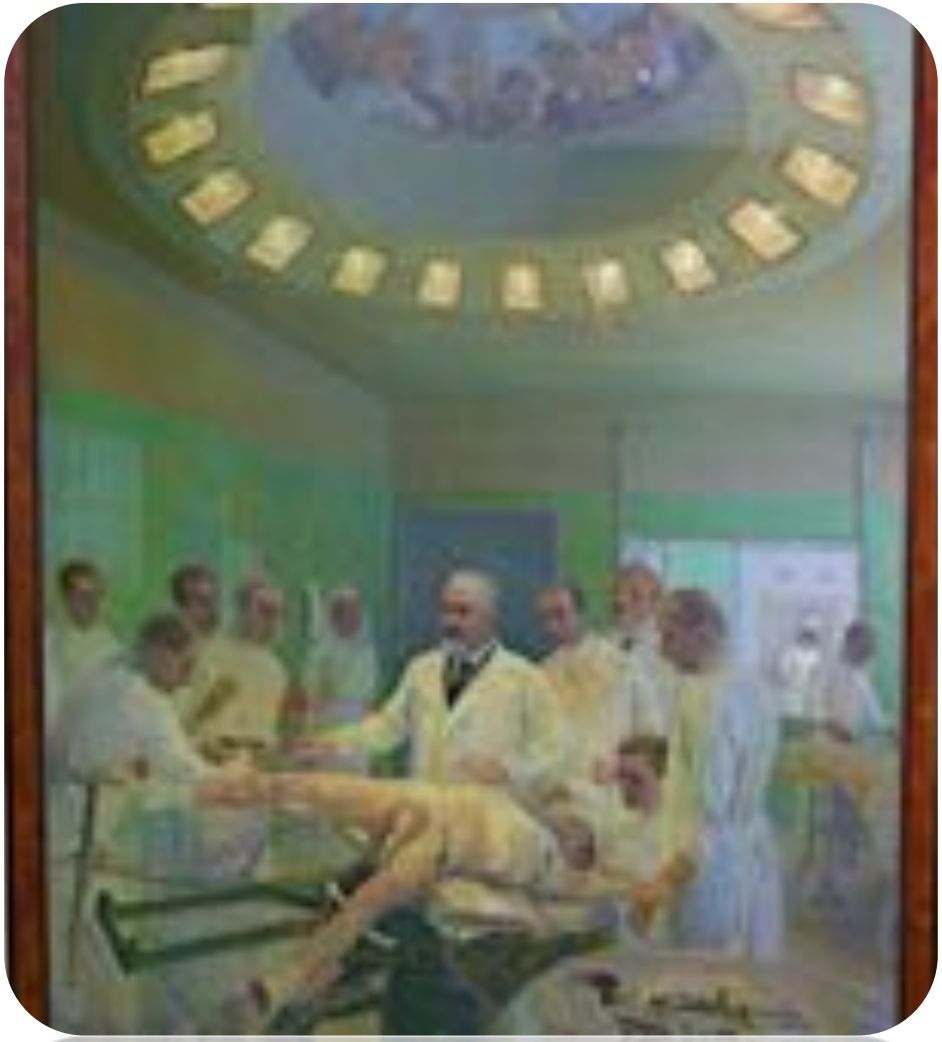
SHAHIN SHEIBANI-RAD, MD, MS; J. CHRISTIAAN COETZEE, MD; M. RUSSELL GIVEANS, PHD; CHRISTOPHER DIGIOVANNI, MD

ORTHOPEDICS June 2012 - Volume 35 · Issue 6

CRIF vs ORIF vs ARTRODESI

PROBLEMA DI INDICAZIONE E NON SOLO DI TECNICA



IL DIBATTITO RIMANE APERTO…

GRAZIE