INFLUENZA DEL DESIGN TIBIALE SULL'ALLINEAMENTO ROTAZIONALE DELLA PTG

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LONG-TERM RESULTS TKA
1990 Decade vs 2000 Decade

Orthopade. 2013 May 23. [Epub ahead of print]

[Satisfaction after total knee arthroplasty : Comparison of 1990-1999 with 2000-20

[Article in German]

Schulze A, Scharf HP.

Orthopädisch-Unfallchirurgisches Zentrum, Universitätsmedizin Mannheim, Theodor-Kutzer-Ufer 1-3, 6 hulze@umm.de.

Abstract

Total knee arthroplasty (TKA) is one of the most common operations i ut despite being mainly successful only 81 % of patients are satisfied with the final result. The following syste tisfaction and analyzed the causal connections and influencing factors after TKA between 1990-1999 and 200 of 81.2 % of patients were satisfied after TKA and in the period 2000-2012 patient satisfaction increased to 8 perative satisfaction derived from the 25 publications included in the study were consistently body-mass index unction and mental factors. A lack of satisfaction scores and different designs resulted in difficulties in compari ently limitations of this study.

PMID: 23695195 [PubMed - as suppli

Not fully happy

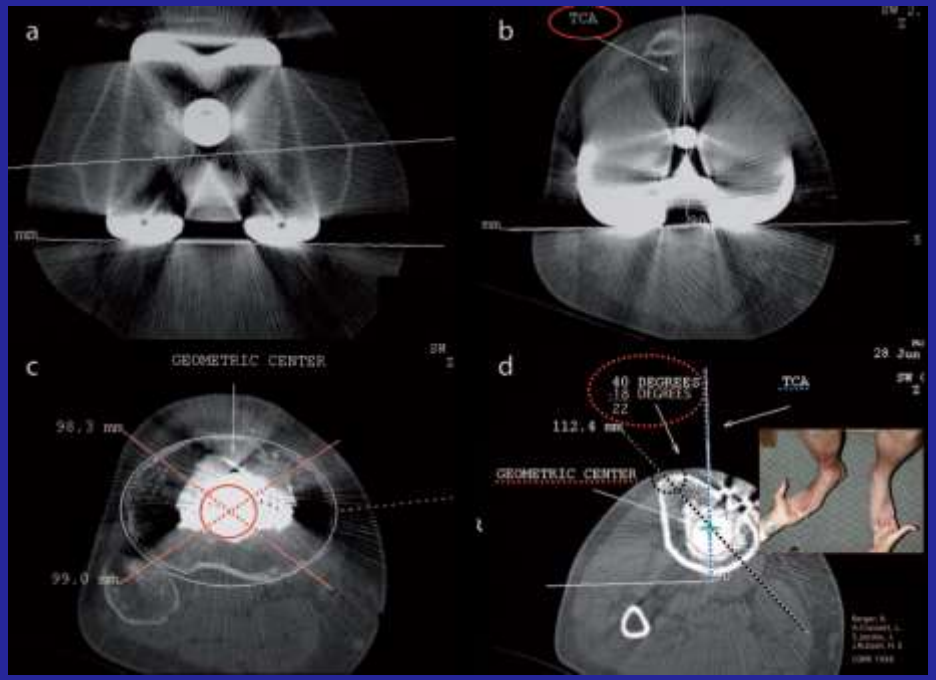
- 19 1999: 82% patients satisfied
- 2000-2012: 85 % patients satisfied

Review

Biomechanical background and clinical observations of rotational malalignment in TKA: Literature review and consequences

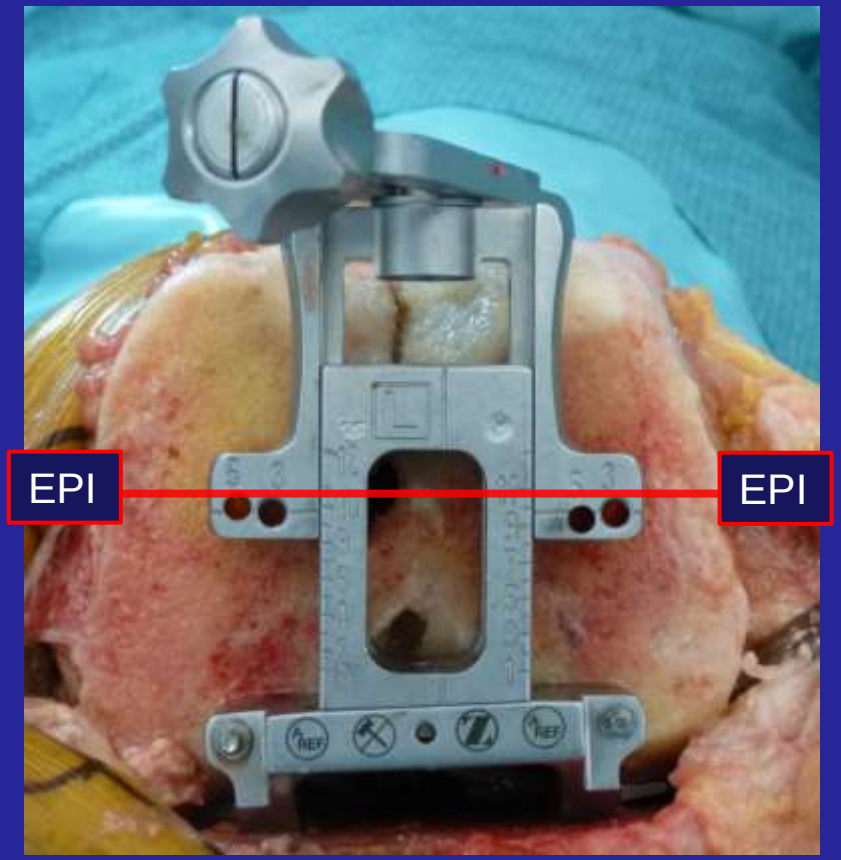
Monika Silvia Zihlmann [a,*], Alex Stacoff [a], José Romero [b], Inès Kramers-de Quervain [a,c], Edgar Stüssi [a]

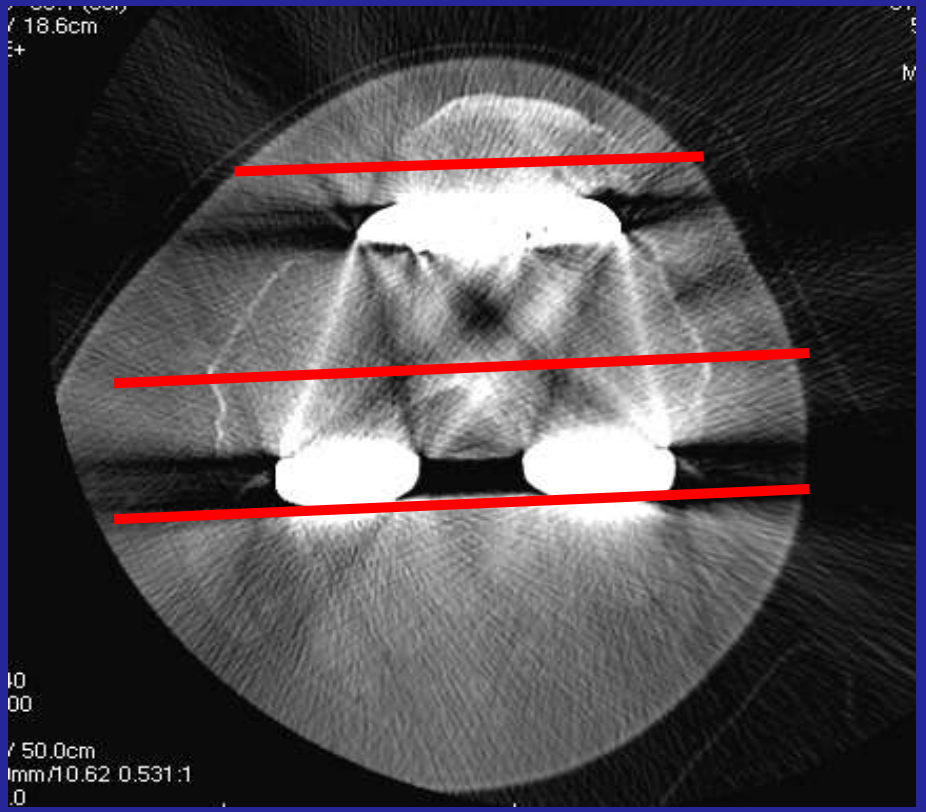
Clinical Biomechanics 20: 661-668, 2005



IL FEMORE: ALLINEAMENTO IDEALE

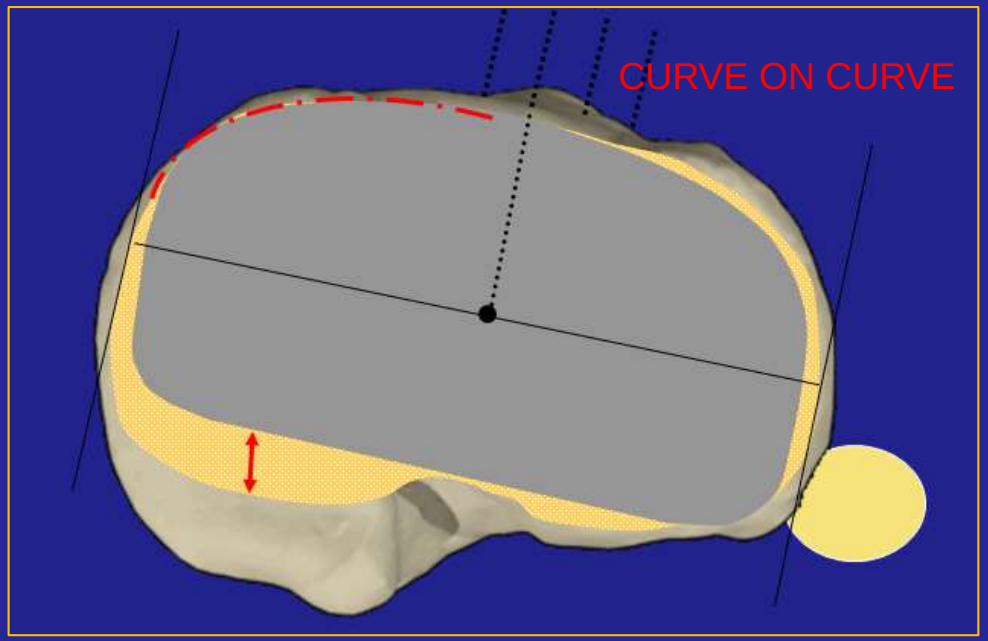
ASSE TRANSEPICONDILARE

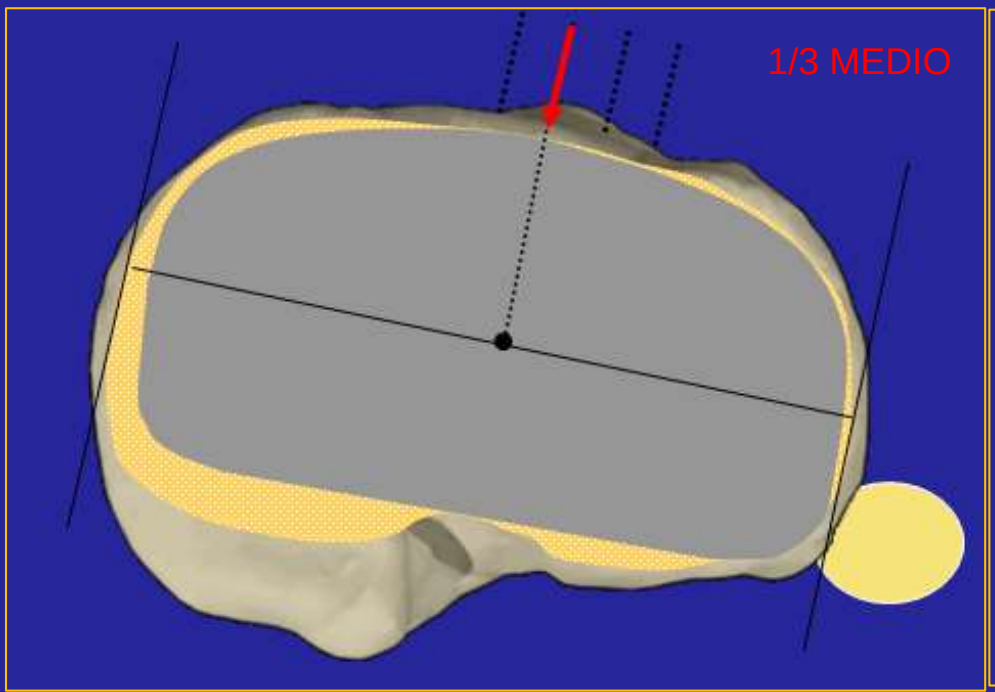


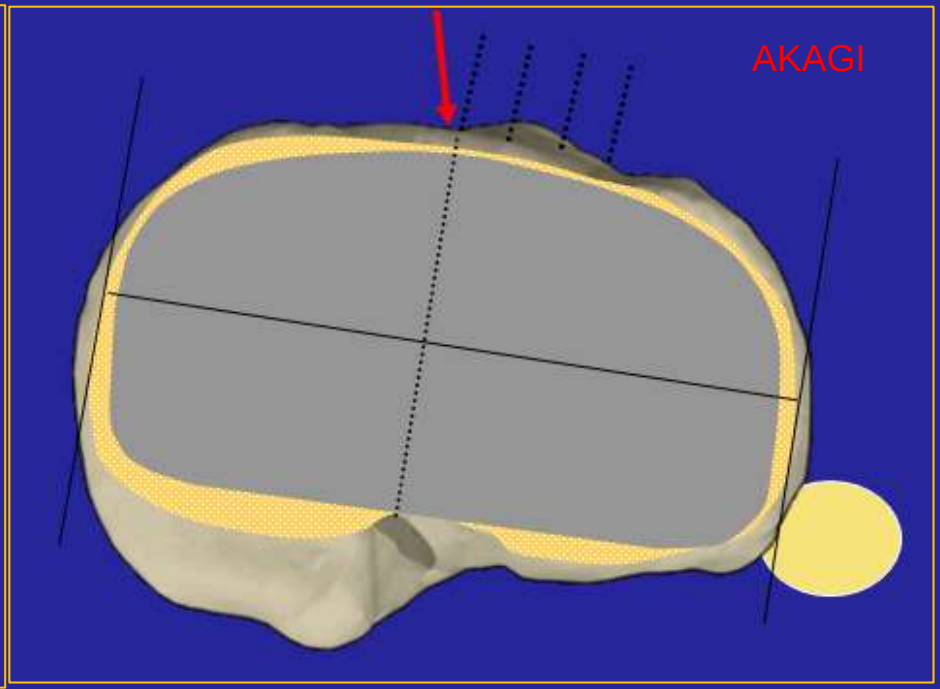


Allineamento tibiale:

Quale Tecnica ?



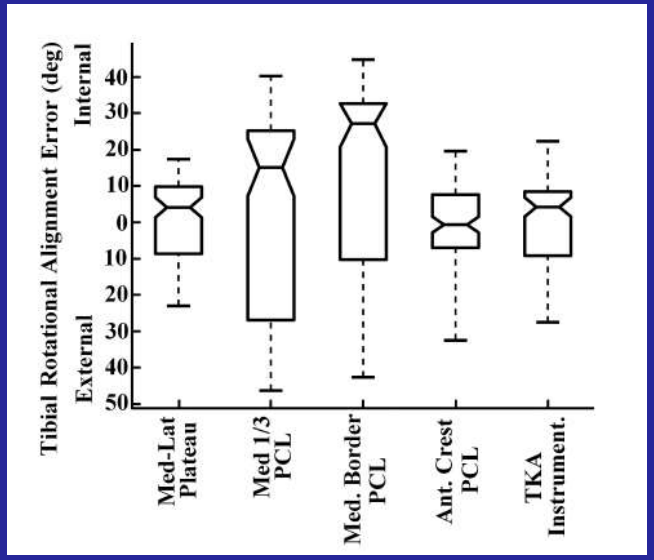




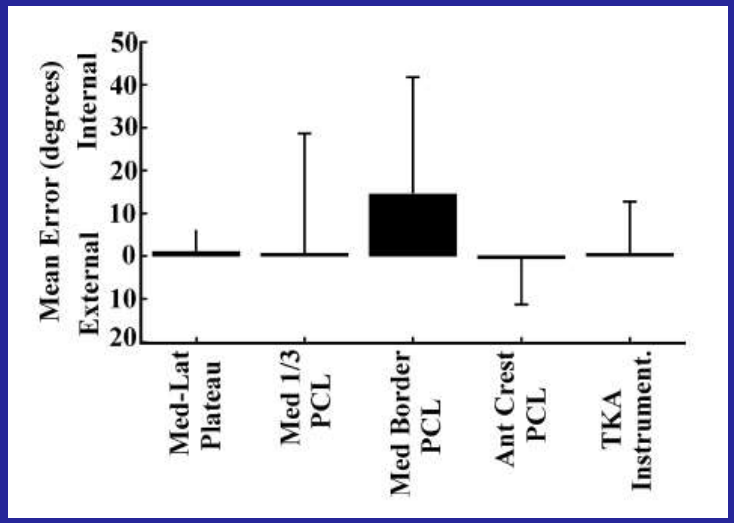
CLINICAL ORTHOPAEDICS AND RELATED RESEARCH
Number 452, pp. 65–69

The High Variability of Tibial Rotational Alignment in Total Knee Arthroplasty

Robert A. Siston, PhD[,§]; Stuart B. Goodman, MD, PhD[*,†]; Jay J. Patel, MS[*]; Scott L. Delp, PhD[*,†,§]; and Nicholas J. Giori, MD, PhD[*,†,‡]*



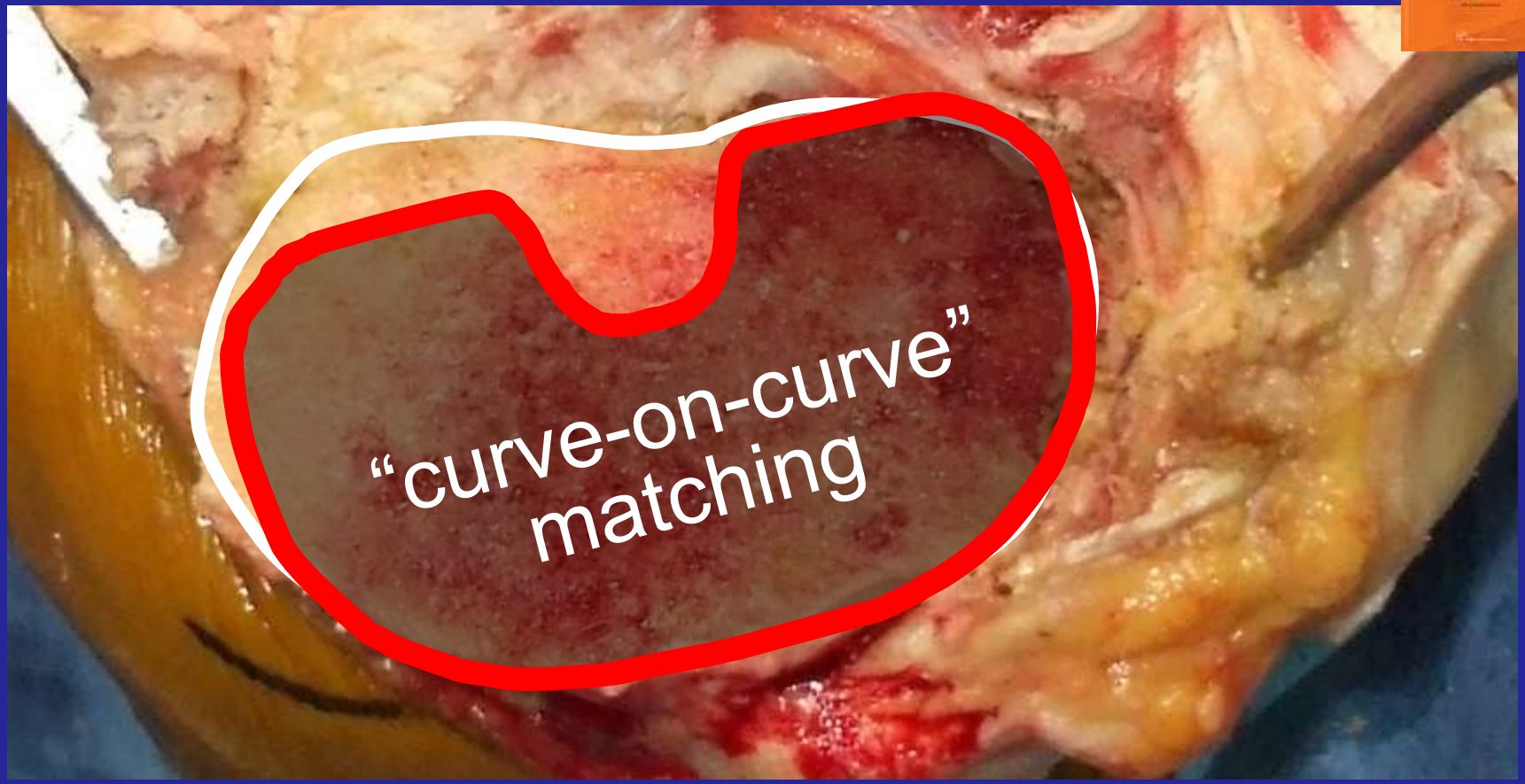
- NO CLEAR GUIDELINES
- TREND TO I.R.



"AKAGI'S LINE" LESS RELIABLE LANDMARK

NO HELP FROM NAVIGATION

Curve-on-curve: Studio RMN
124 normal knee



The anterior tibial surface curvature is the most reliable landmark:

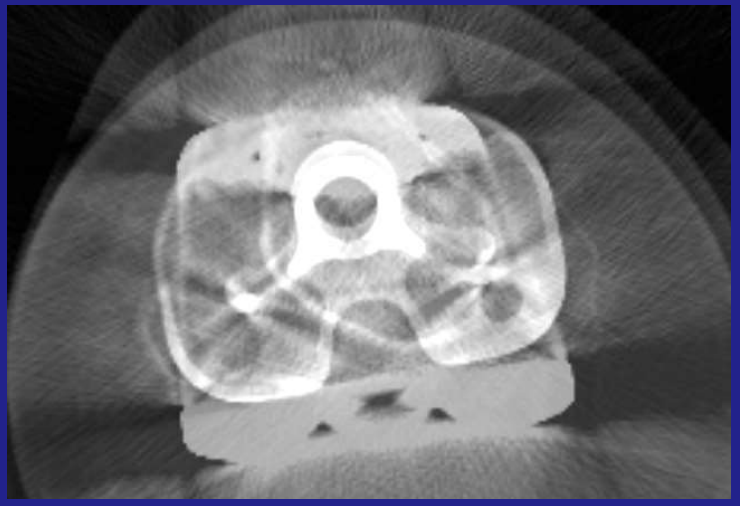
TIBIAL ML AXIS PARALLEL TO TEA

CT-scan postoperative validation of 'curve on curve' reference in TKA

Baldini, F. Traverso, PF. Indelli, G. Grappiolo:

Istituto Clinico Humanitas – CESAT Fucecchio

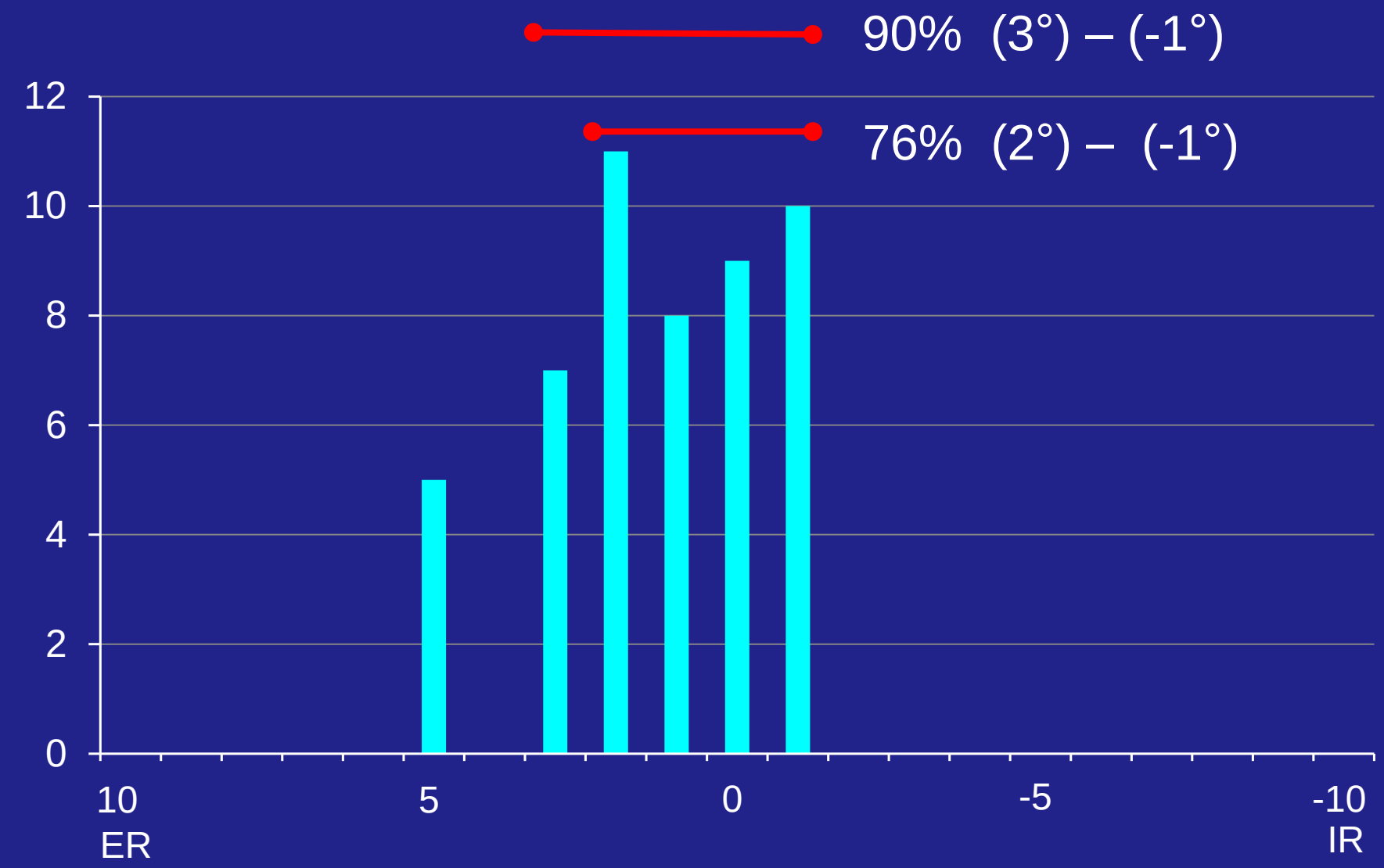
- 50 TKAs (40 Zimmer NexGen, 10 De Puy Sigma)
- Only primary osteoarthritis
- All symmetric tibial baseplates
- Postoperative CT scans

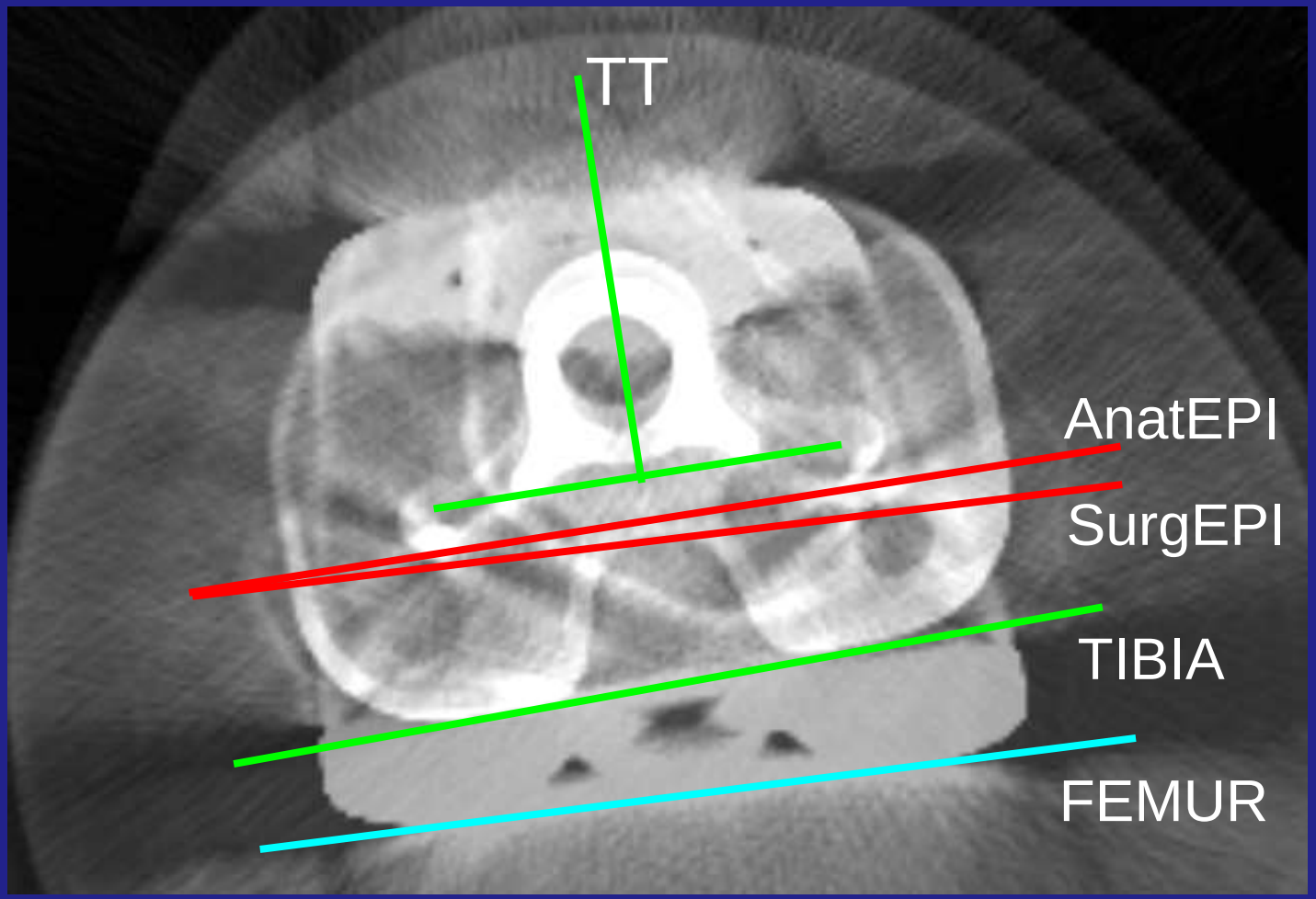


CT study

Risultati

Media E.R. piatto tibiale : 1,32 (Min. 5°; Max 1°).





Curve-on-Curve tecnica valida e riproducibile con differenti impianti e differenti operatori

COMPONENTI TIBIALI ANATOMICHE CON DIFFERENTI GRADI DI ASIMMETRIA

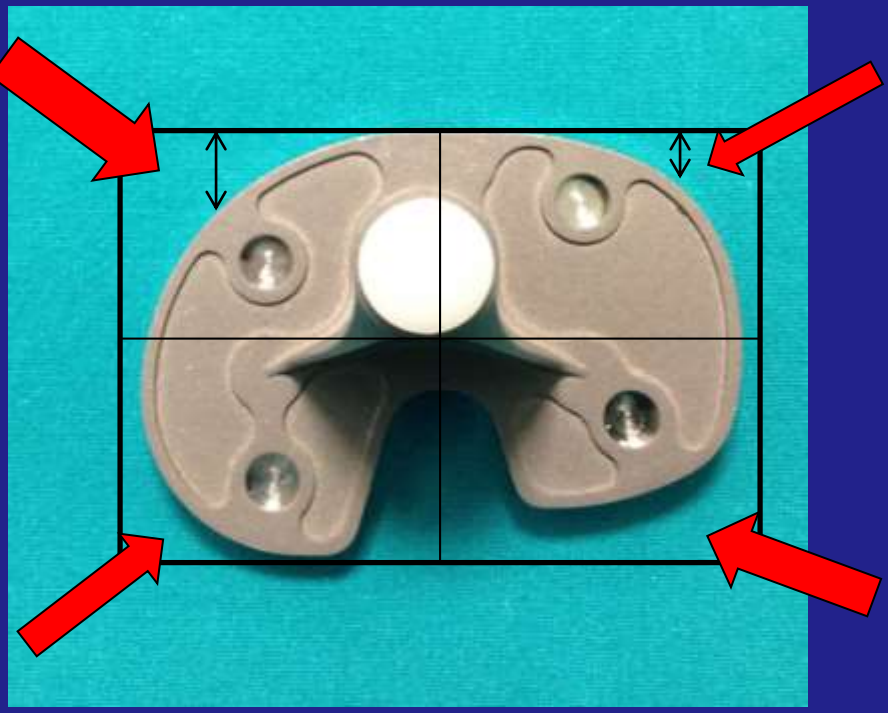
Influenza del design tibiale sull'allineamento rotazionale?

Studio allineamento rotazionale con esame TAC

COMPONENTE TIBIALE ASIMMETRICA

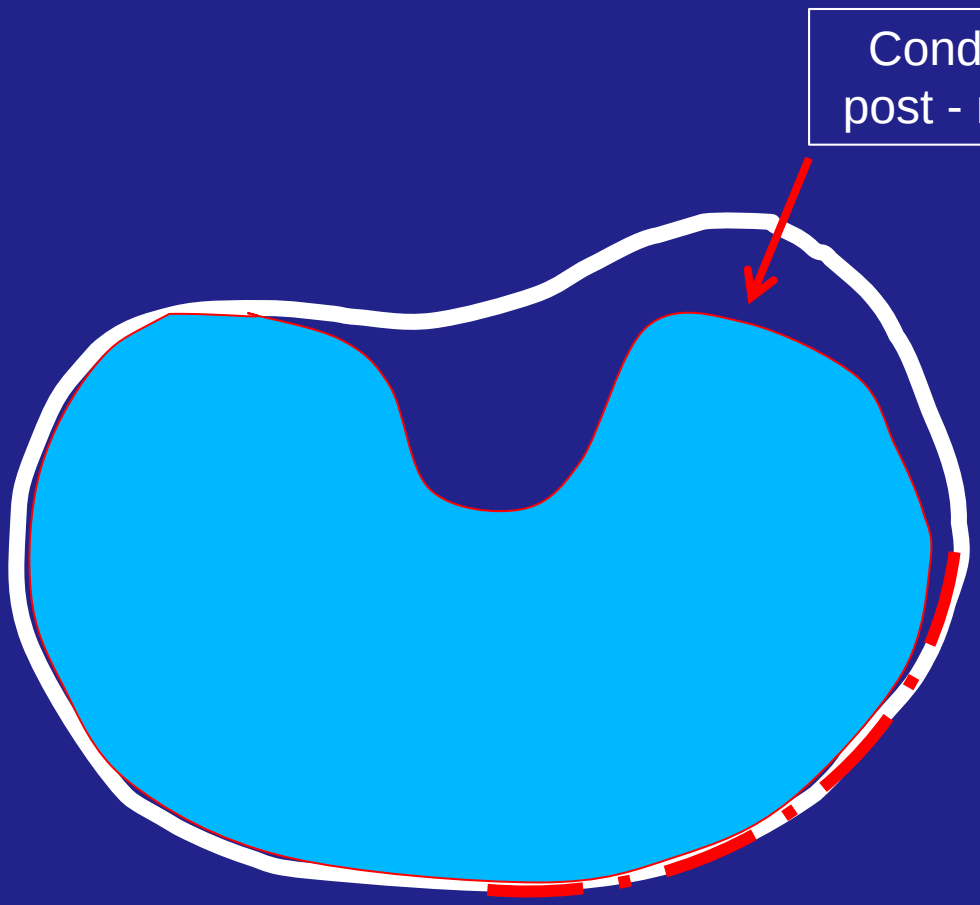
Antero-Medial Asymmetry

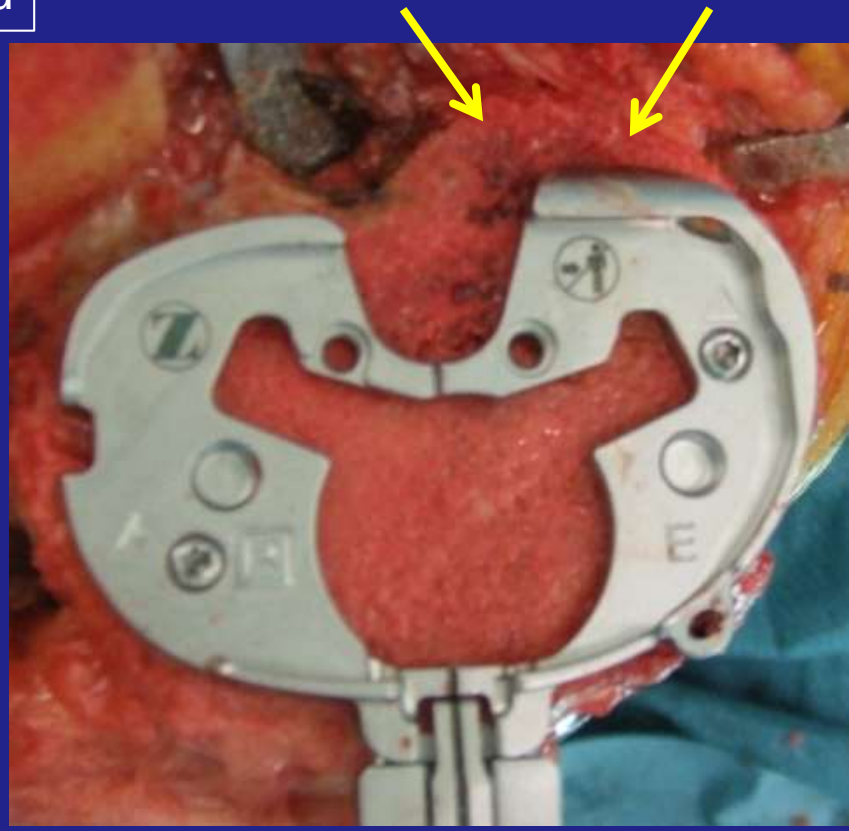
Right Tibial Plate



Left Tibial Plate

Ipotesi:
Antero -Medial Asymmetry





Eccessiva extrarotazione ??

CT study

Metodi
20 PTG esame TAC

8 uomini

12 donne

eta' media 72 anni

Criteri d' esculsione:
Post-trauma, Post-osteotomies, Displasia

Berger protocol
(Op Tech Orthop 1998)

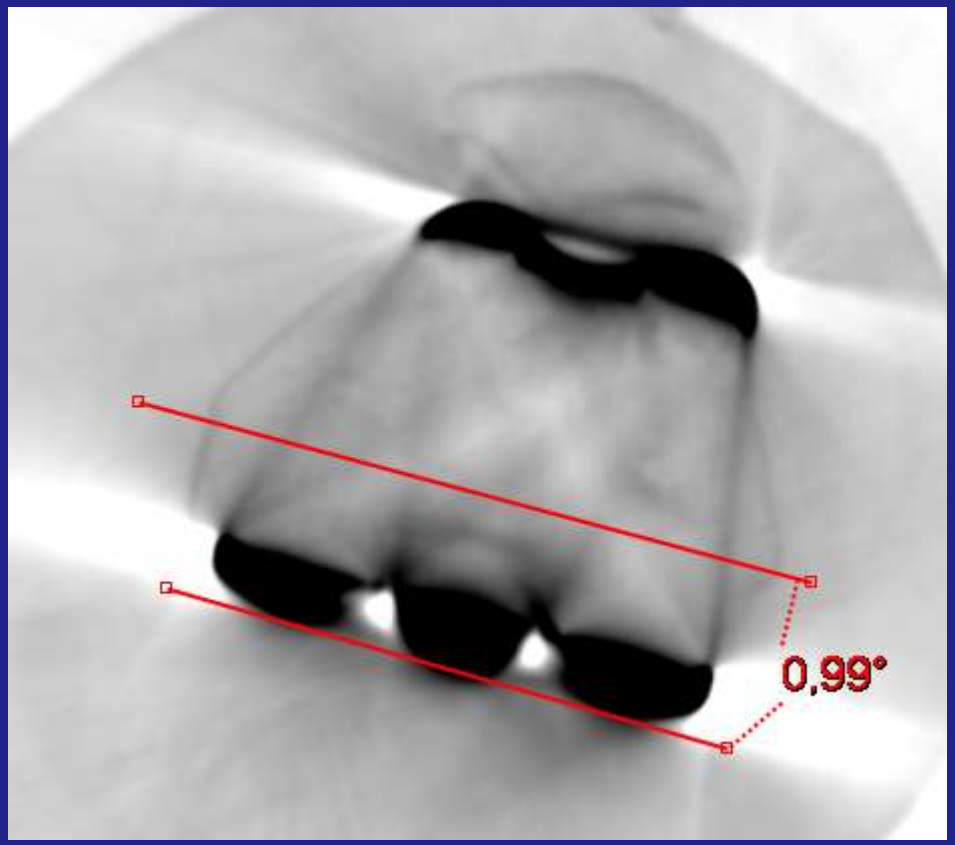
- Quadriceps contraction
- Full extension
- 2° foot MT ray vertical

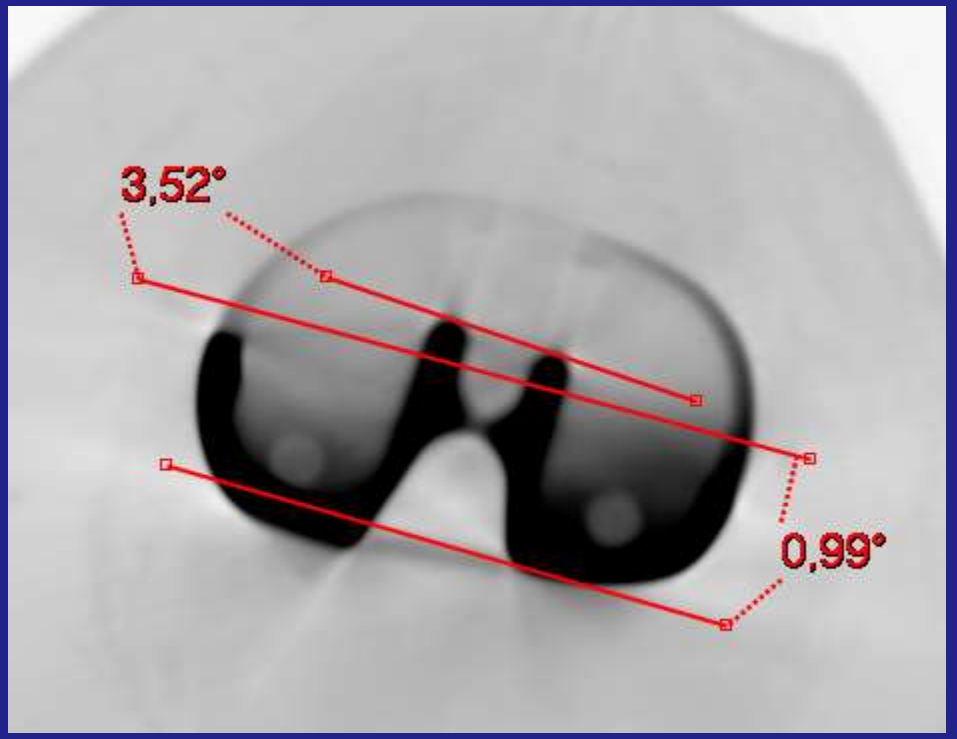
Persona, Zimmer.

CT study

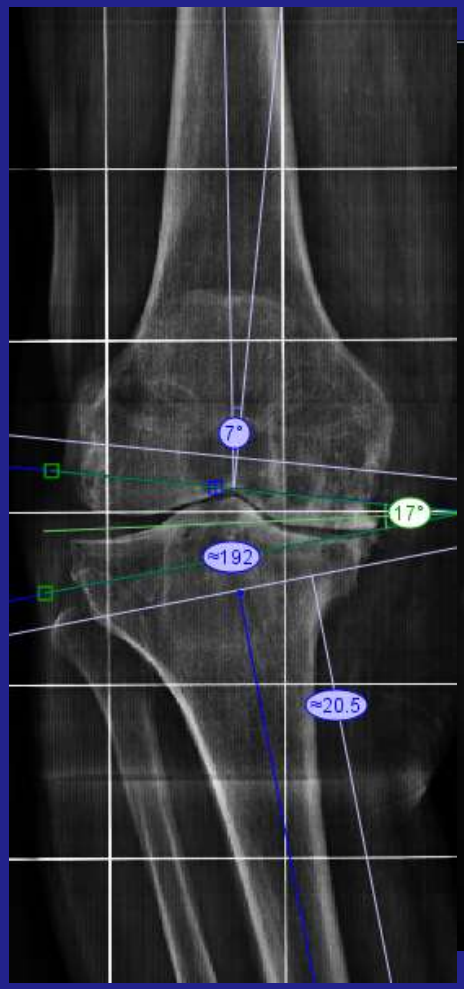
Metodi

TECNICA DI MISURAZIONE

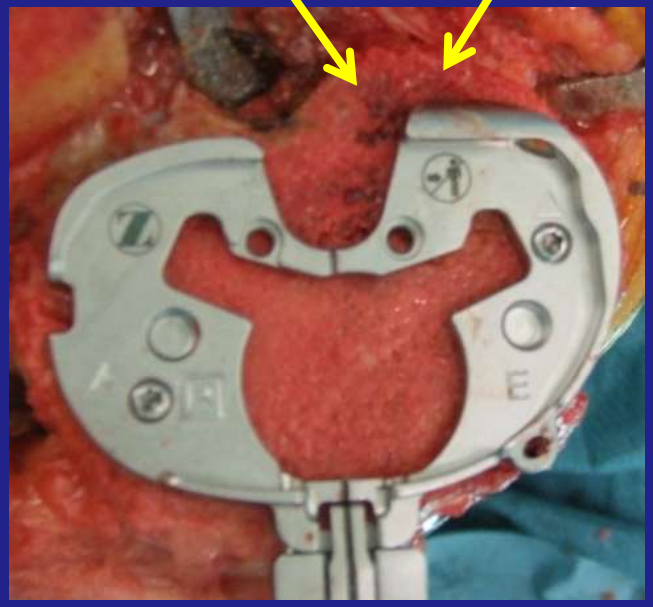




S.G., 68 AA, M



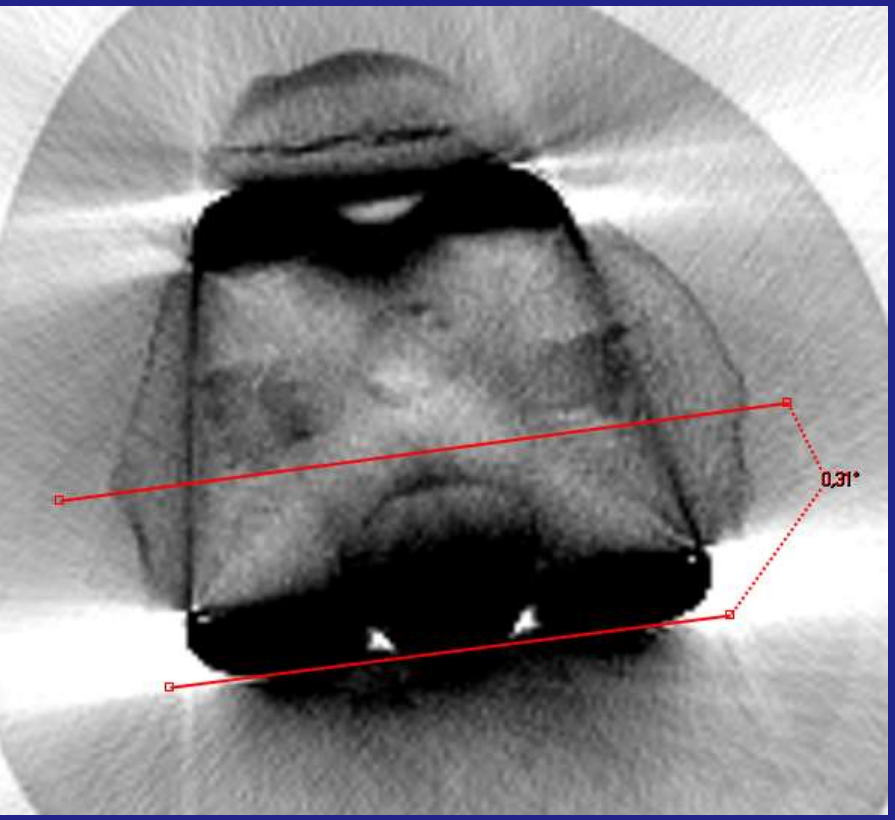
1 Year F.U.

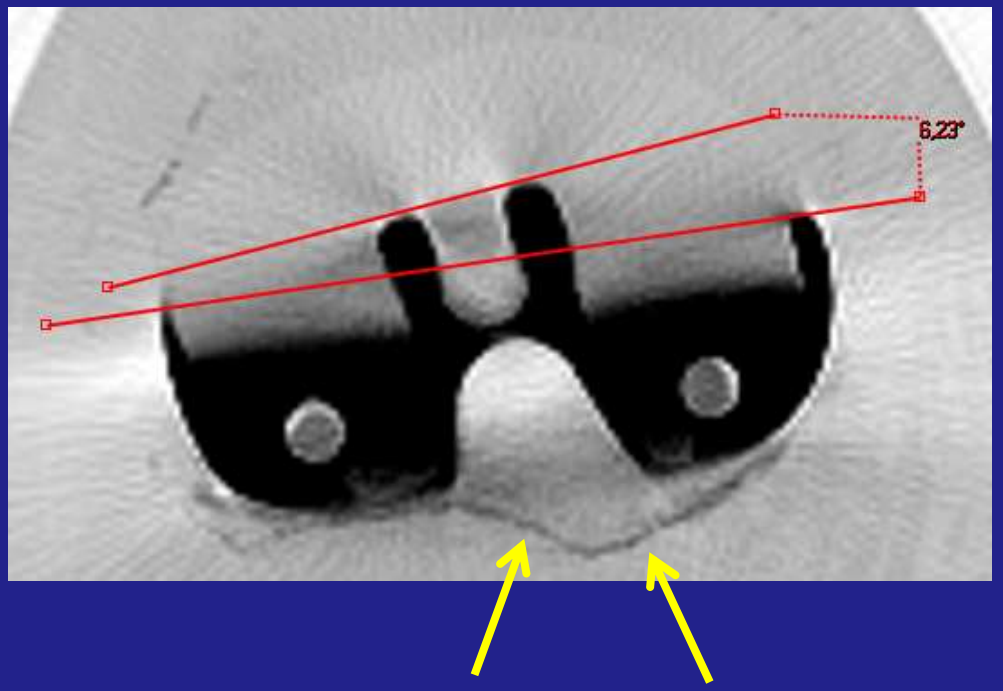


" Curve –on – Curve "

S.G. 68 AA

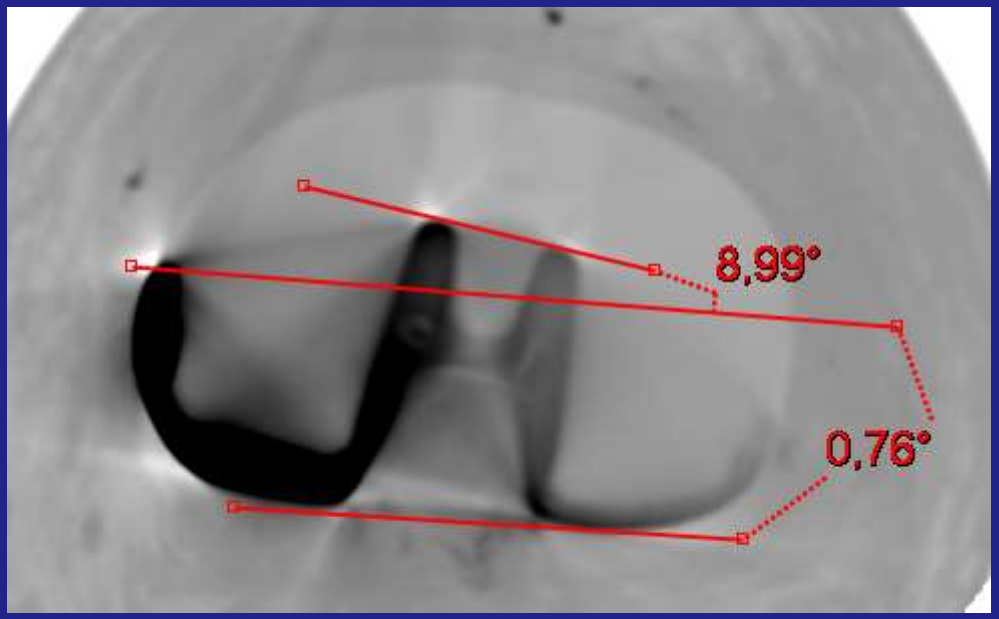
ER: 6,23°

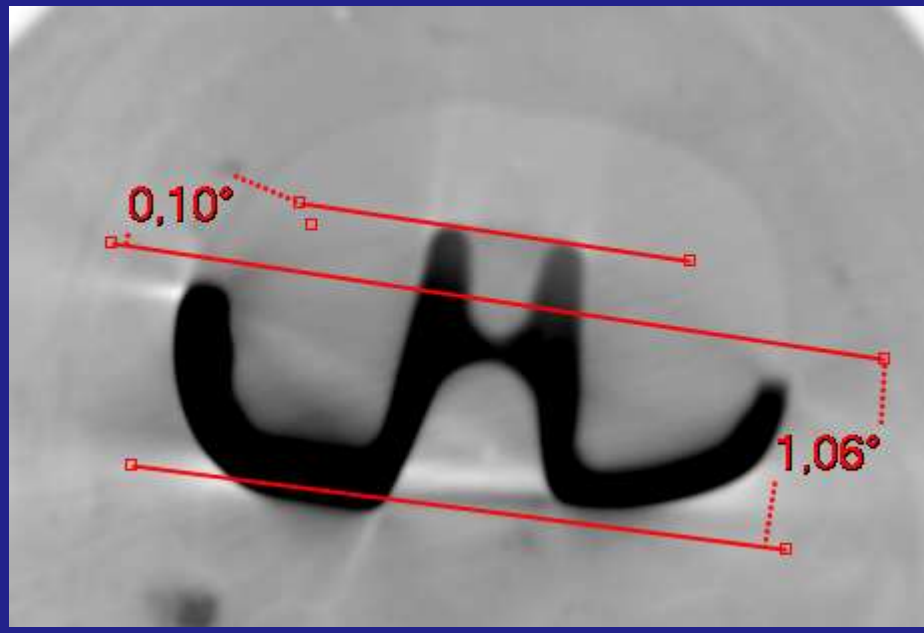




RISULTATI:
Rotazione Tibiale Rispetto al c-TEA

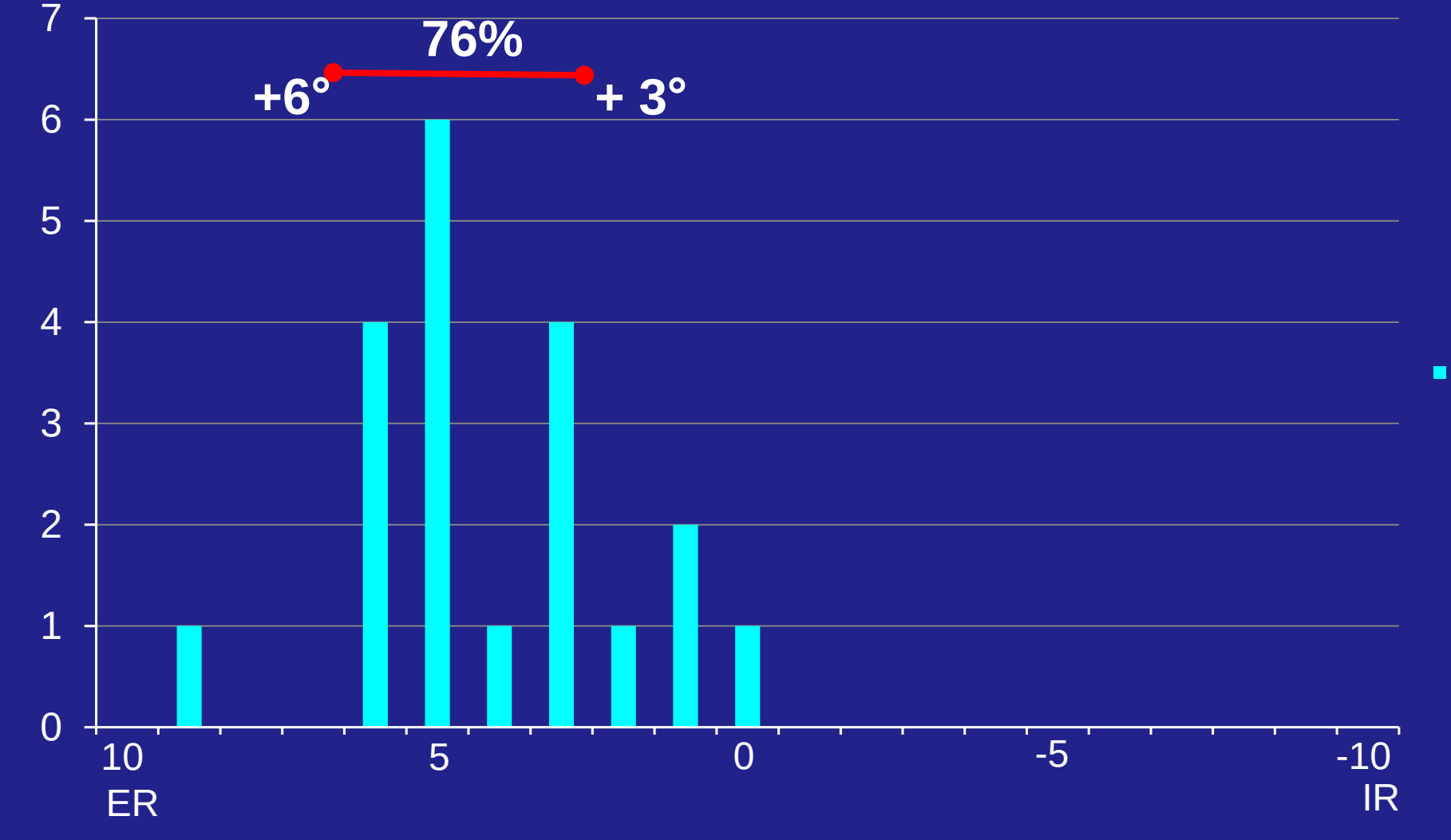
- Media E.R. piatto tibiale :
  4,15° (Min. 8,99°; Max 0,10°).





CT study

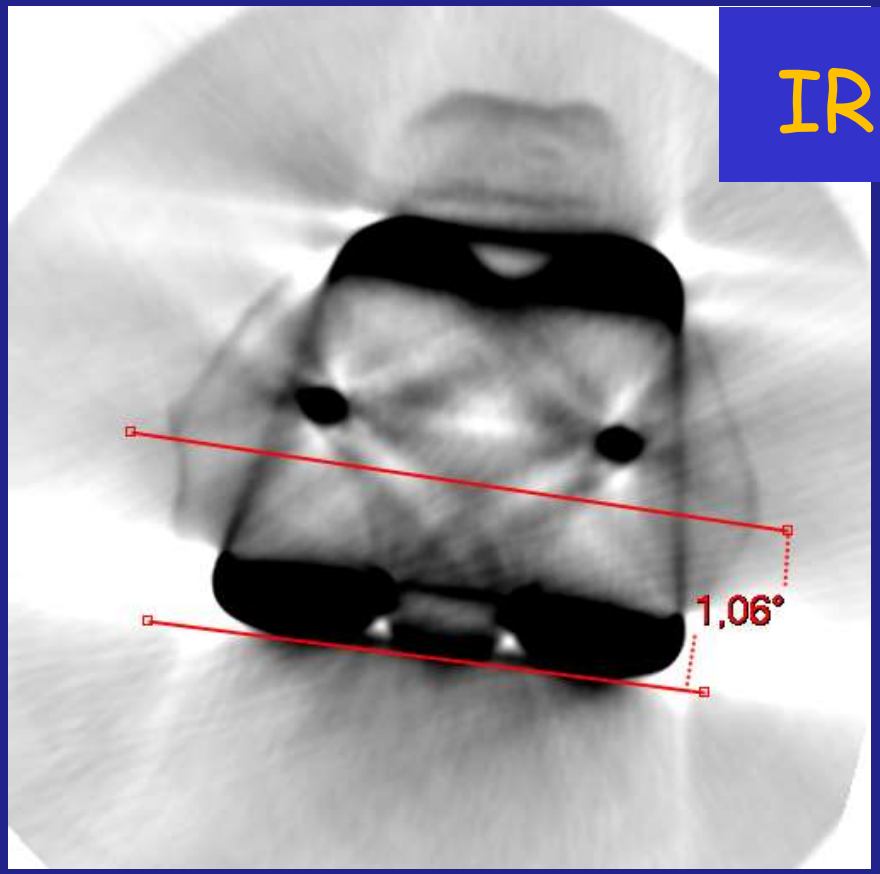
Risultati

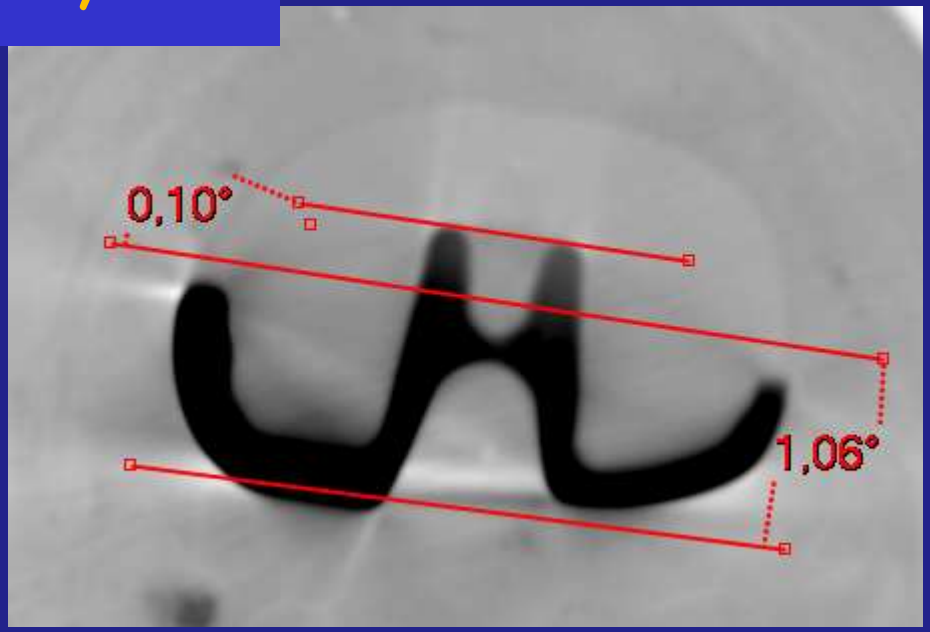


In nessun caso componente I.R.

Z.V. 65 AA

IR: 0,10°

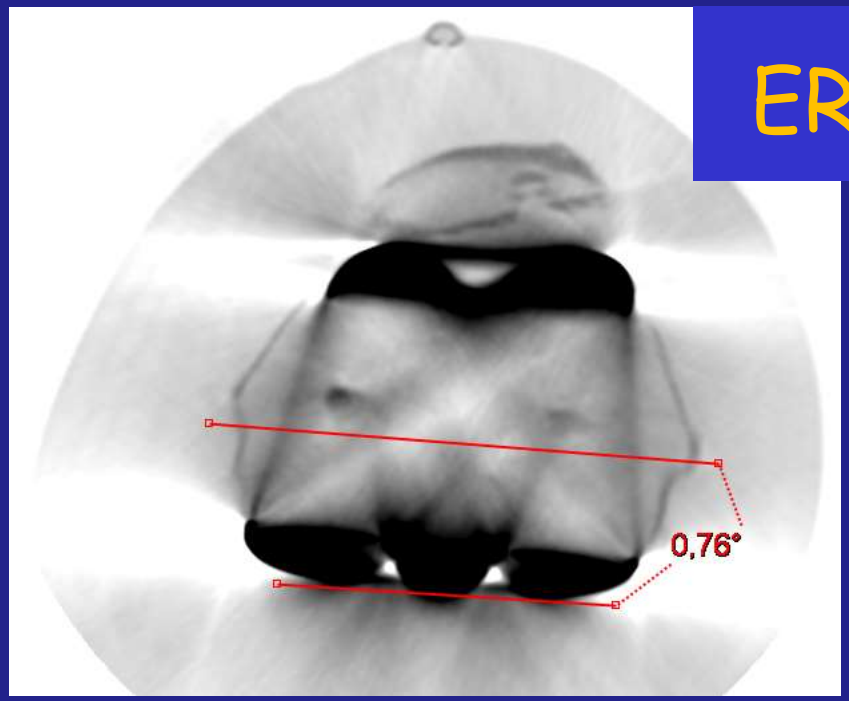




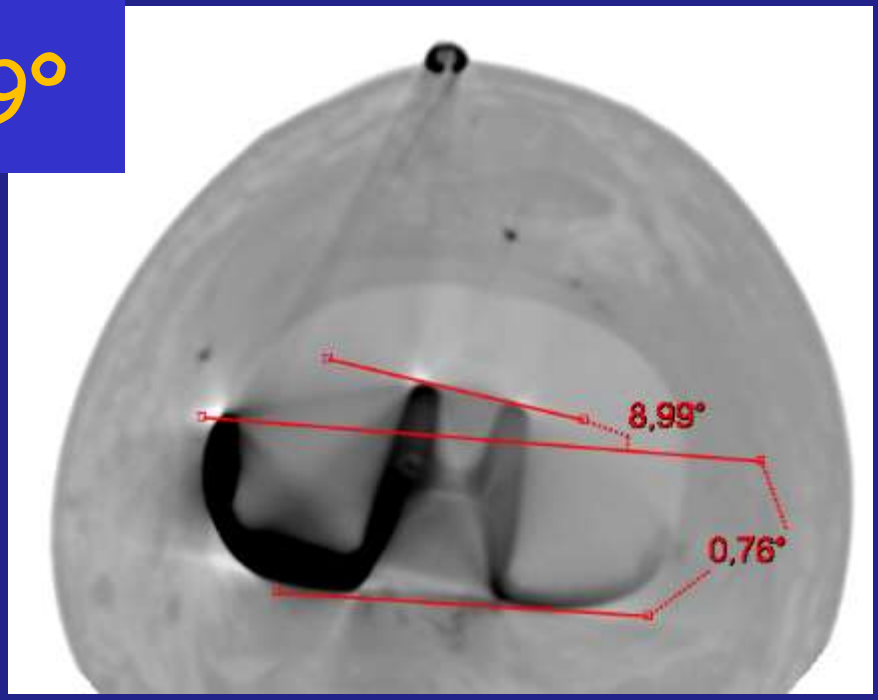
Curve on Curve

Antero –Medial Asymmetry

A.G. 76 AA



ER: 9°



ATTENZIONE ALL' ECCESSIVA ROTAZIONE ESTERNA

CONCLUSIONE

- Questo studio conferma l'affidabilita' della tecnica "curve on curve" per l'allineamento rotazionale del piatto tibiale. (0 casi di I.R.)

- Tuttavia le componenti tibiali con questa asimmetria possono indurre ad una eccessiva extrarotazione del piatto qualora si utilizzi tale tecnica.

- La valenza clinica di questa possibile eccessiva extrarotazione deve essere comunque confermata da studi ulteriori.

GRAZIE