

Expectations of re-surgery

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6th Advanced Course on Knee Surgery

January 31st – February 5th, 2016 Val d'Isère - France

IML



Institut du Mouvement et de l'appareil Locomoteur

Aix*Marseille
université

The patients want the Moon...



2 categories of patients

1. No Honey Moon after primary TKA

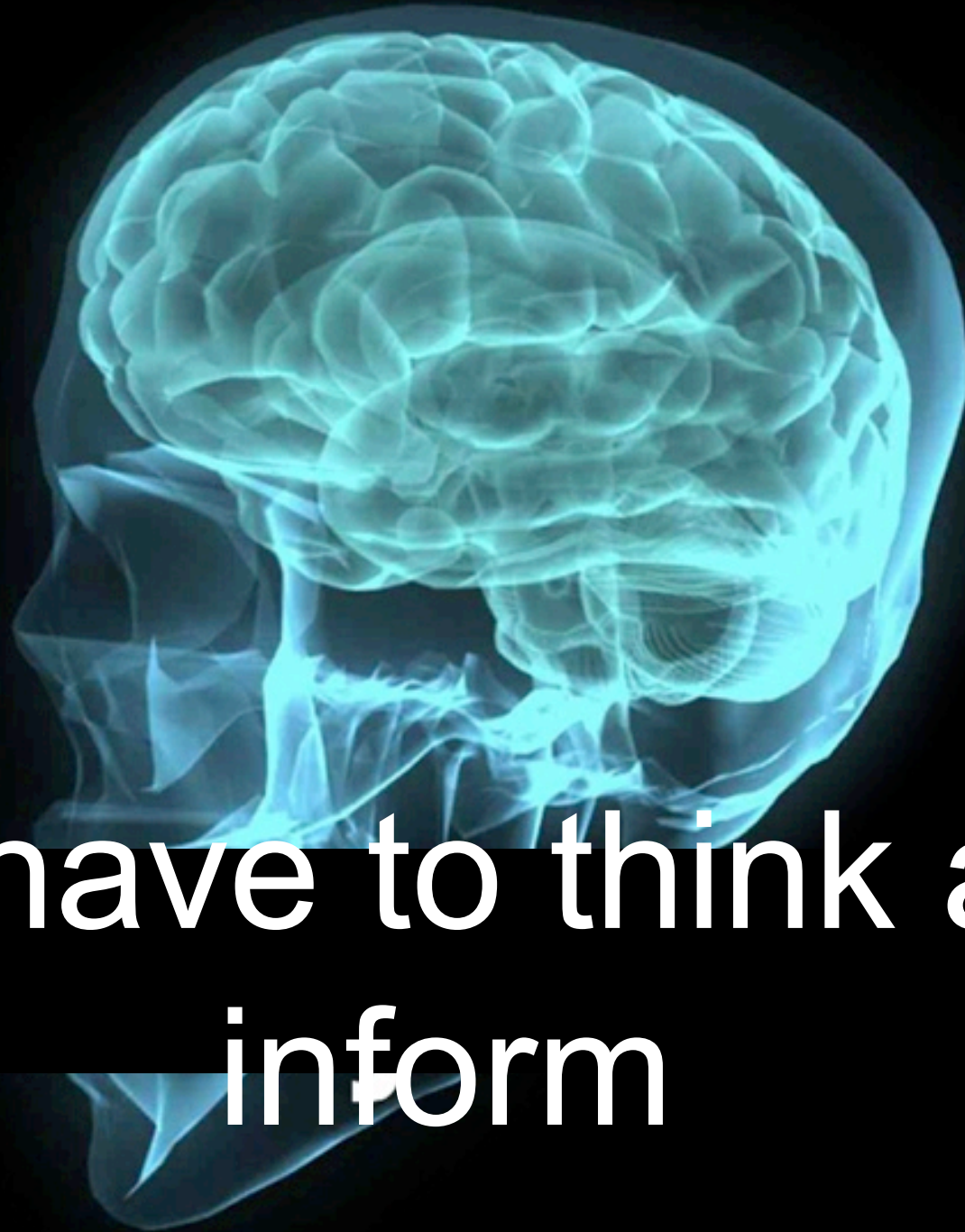
⇒ They want to do as well as their friend who is running with his TKA !

2. Revision after well functioning TKA

⇒ They want to do as well as before

Before jumping...





We have to think and
inform

3 situations

1. Re-surgery for a clear mechanical problem

2. Re-surgery for infection

3. Re-surgery without any clear cause

Re-surgery for a clear mechanical problem



Hypothesis



Results of revision of UKA by TKA

- > than revision of TKA
- < than primary TKA

J Arthroplasty. 2015 Nov;30(11):1985-9. doi: 10.1016/j.arth.2015.05.042. Epub 2015 May 29.

Are Revisions of Unicompartamental Knee Arthroplasties More Like a Primary or Revision TKA?

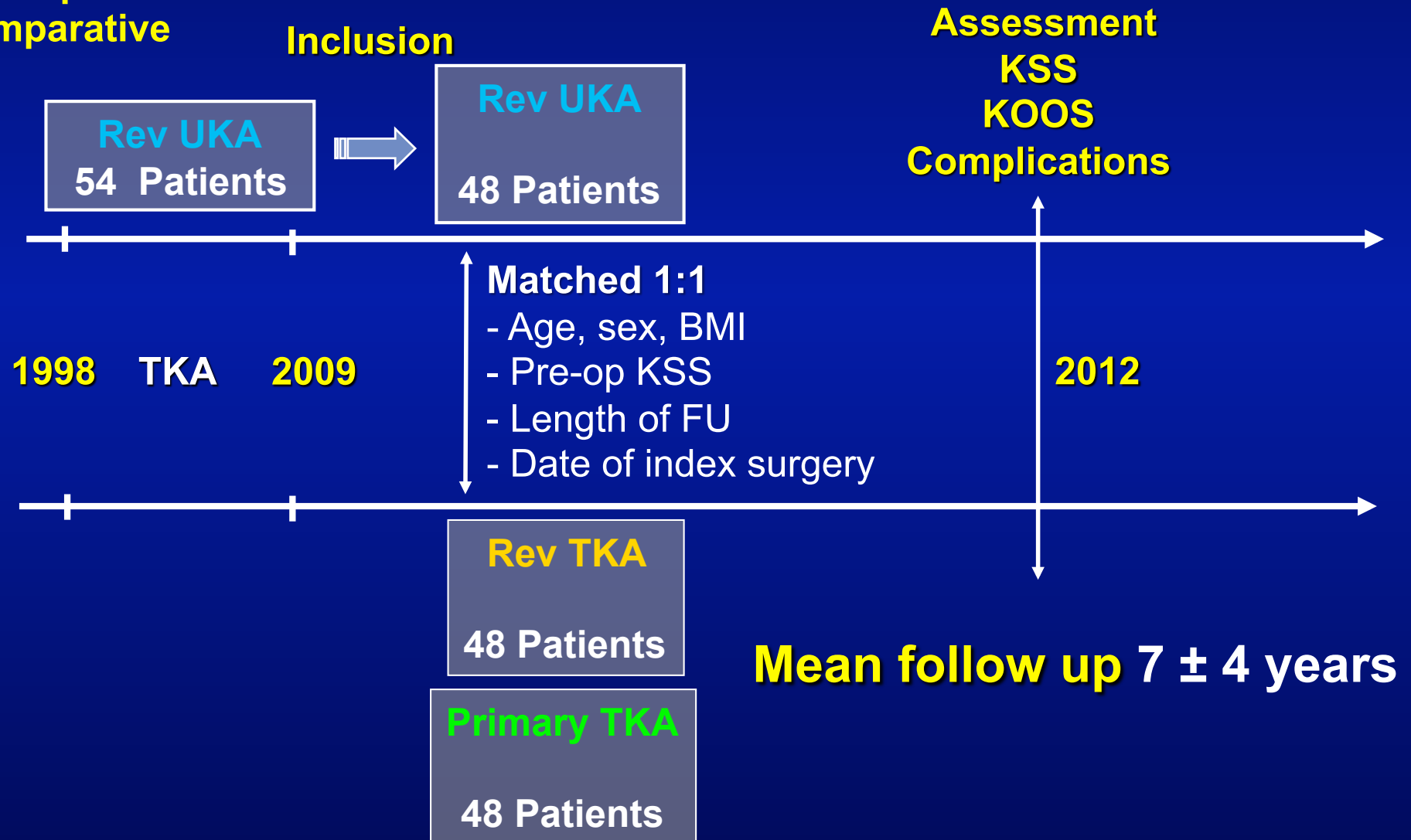
Lunebourg A¹, Parratte S¹, Ollivier M¹, Abdel MP², Argenson JN¹.

3. Complications ?  Re-operation and Re-revision

Material and Methods

Study:

Retrospective
Comparative



Material and Methods

Groups Characteristics	Rev UKA (n = 48) Mean	Rev TKA (n = 48) Mean	Primary TKA (n = 48) Mean
Age (years)	71 ± 9	70 ± 10	72 ± 12
Gender (Male)	12	13	16
BMI (Kg/m²)	28 ± 4	28 ± 5	28 ± 4
Previous knee surgery (n)	1,31 ± 0.47	1,21 ± 0.32	0,38 ± 0.13
Charnley Caterory			
A	10	12	39
B	31	29	7
C	7	7	2

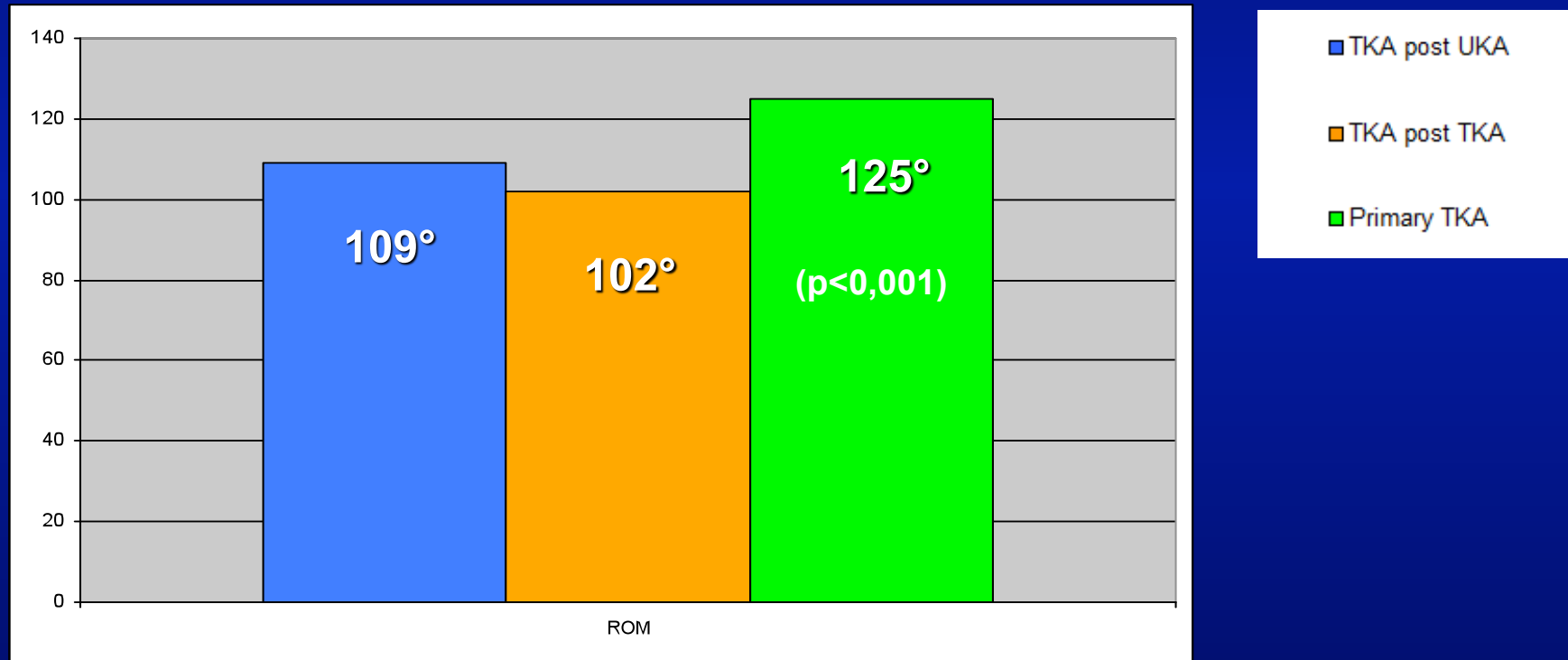
Material and Methods

Characteristics of Revision	Rev UKA (n = 48)	Rev TKA (n = 48)
Delay from primary surgery and revision (years)	9 ± 5	10 ± 3
Reasons of revision	Progression of disease 29 Loosening 17 Wear 1 Collapse tibial plateau 1	Loosening 36 Instability 12
Type of explant	Medial 43 Lateral 5	50% of cases are PS
Type of revision TKA	Postero-stabilised 43 CCK 5	CCK 48
Steam	Without steam 13 With steam 35	With steam 48
Augments or Graft	20	24
PE size	12,4 ± 1.9	14,3 ± 1.7

Results

- **Post op ROM**

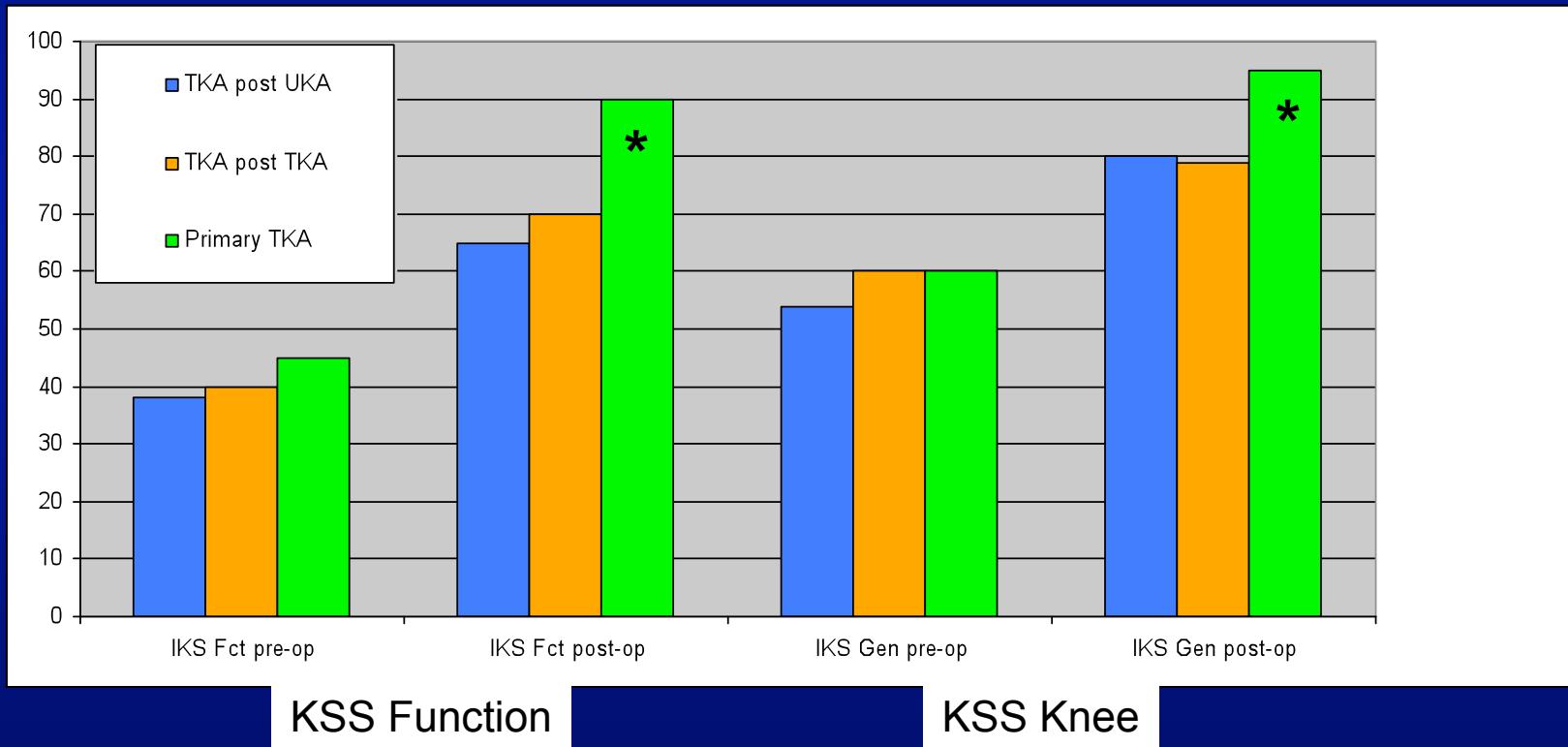
Mean follow up 7 ± 4 years



Results

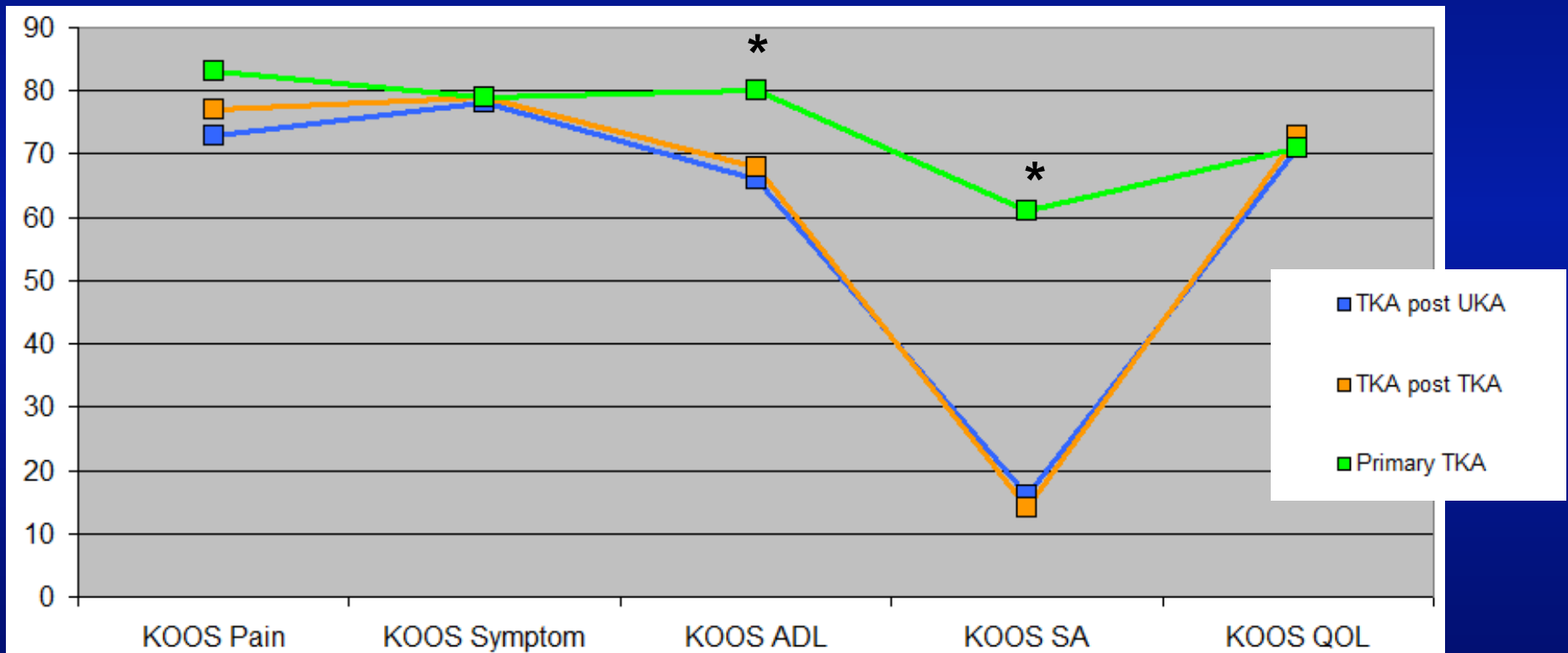
- KSS**

Mean follow up 7 ± 4 years



Results

- Score quality of life (KOOS)



Symposium SFHG 2015

Les Reprises de PTG

Reprise de reprise de PTG

Sébastien Parratte, Damien Girerd, Alexandre Lunebourg,
Jean-Noël Argenson

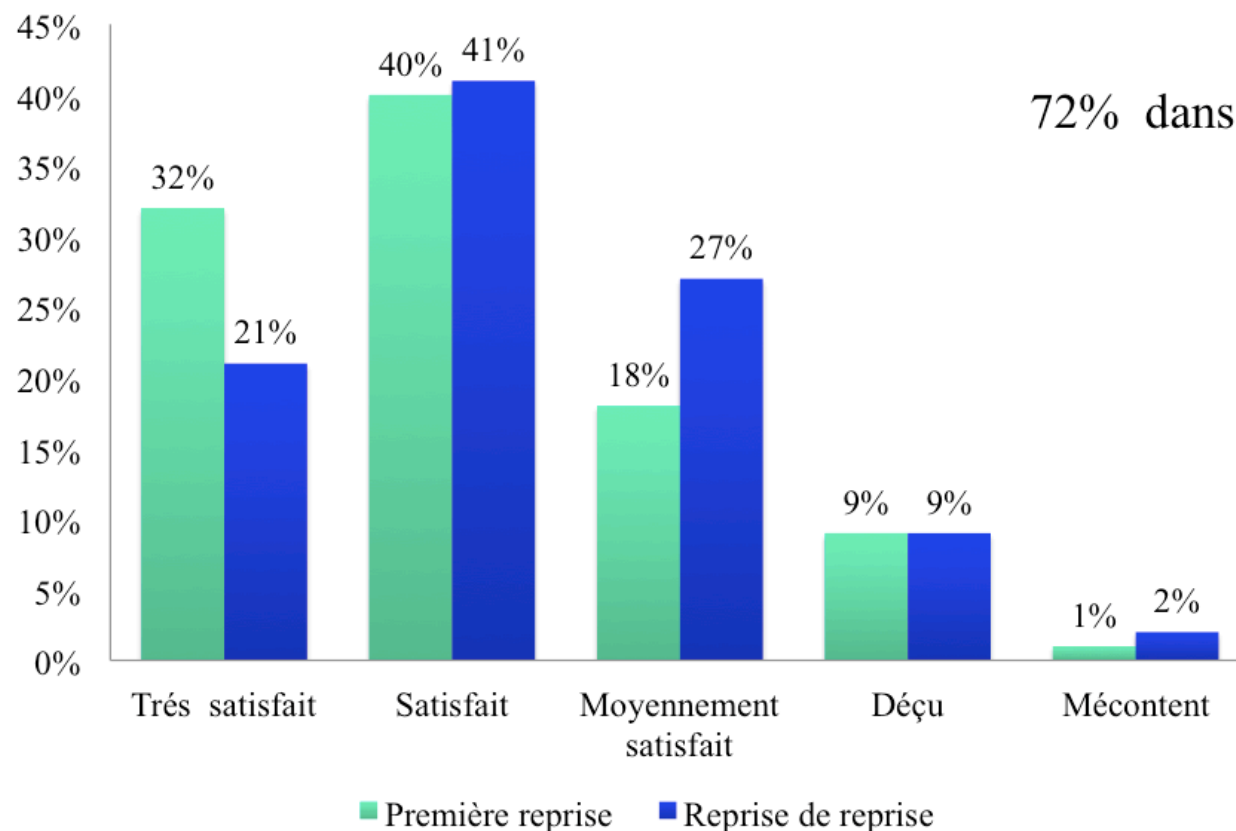
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Locomoteur Marseille*



Résultats

Satisfaction

62 % des patients Satisfait et Très Satisfait
Vs
72% dans les première reprise



3 situations

1. Re-surgery for a clear mechanical problem

2. Re-surgery for infection

3. Re-surgery without any clear cause

Treat the infection

80 % at 5 years

3 situations

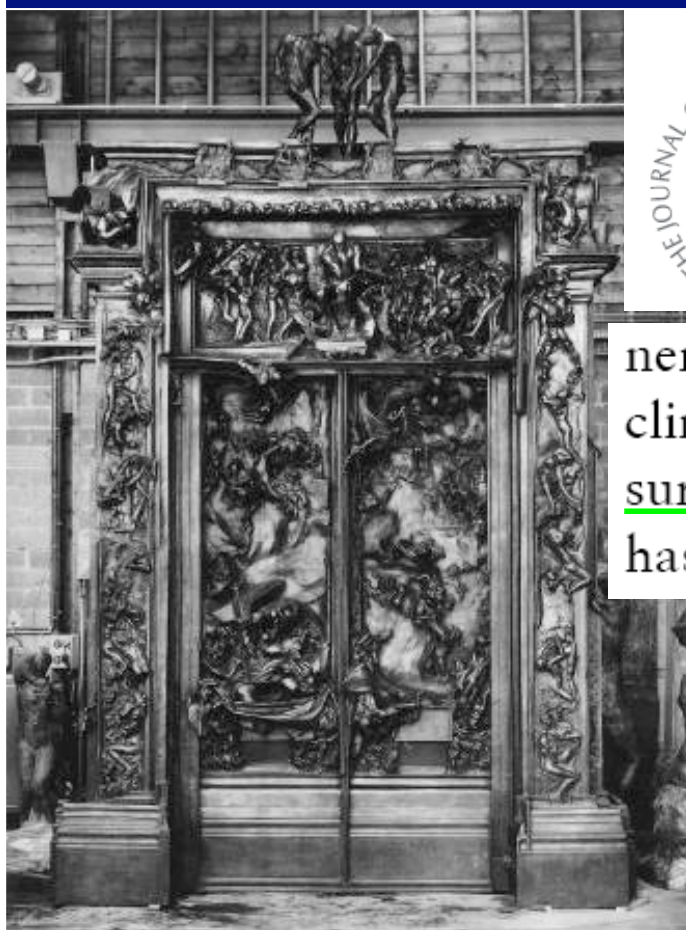
1. Re-surgery for a clear mechanical problem

2. Re-surgery for infection

3. Re-surgery without any clear cause

Results of revision TKA for «Unexplained pain» ?

A. D. Toms,
V. Mandalia,
R. Haigh,
B. Hopwood



■ REVIEW ARTICLE

The management of patients with painful total knee replacement

ner. If a cause for the pain cannot be determined with no clinical, radiological or laboratory abnormality, revision surgery should be performed with extreme caution since it has a low rate of success and more than half of this group of

Results of revision TKA for « Unexplained pain » ?

*D Dennis, J arthroplasty 2004
Evaluation of Painful TKA*

*« In cases of unexplained pain, reoperation is unwise
and frequently associated with suboptimal results »*



Original paper

CLINICAL ORTHOPAEDICS AND RELATED RESEARCH
Number 331, pp 216–220
© 1996 Lippincott–Raven Publishers

Exploration of Radiographically Normal Total Knee Replacements for Unexplained Pain

Michael A. Mont, MD; Fred K. Serna, MD; Kenneth A. Krackow, MD;
and David S. Hungerford, MD*

- 27 patients
- Severe debilitating pain of an unknown cause
- 2 groups of patients
 - ROM > 80°
 - ROM < 80°

Results

Exploration of Radiographically Normal Total Knee Replacements for Unexplained Pain

- 27 patients
- Excellent and good results: 41%
- **Fair or poor: 59%**
- **Chances of success: 17% if Pain and pre-op ROM > 80°**
- Chances of success: 60% if pain and pre-op ROM < 80°
- Conversion from a uncemented to a cemented
=> 86% of poor results

Results

Jacobs MA, Hungerford DS, Krackow KA, Lennox DW. Revision total knee arthroplasty for aseptic failure. *Clin Orthop* 1988;226:78-85.

5 patients unexplained pain

Revision

2 fair, 2 poor, 1 failed

All patients had an increased flexion (76 to 95°)

« Pain was not related in any way to lack of motion »

The Stiff Total Knee Arthroplasty: A Contemporary Approach

Mark W. Pagnano, MD, and Sebastien Parratte, MD



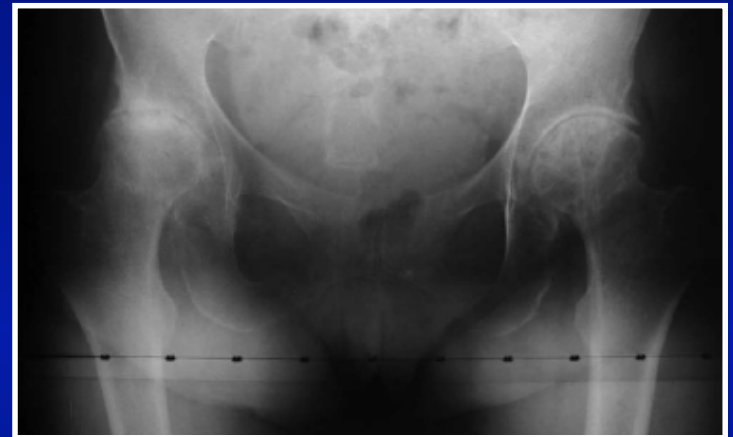
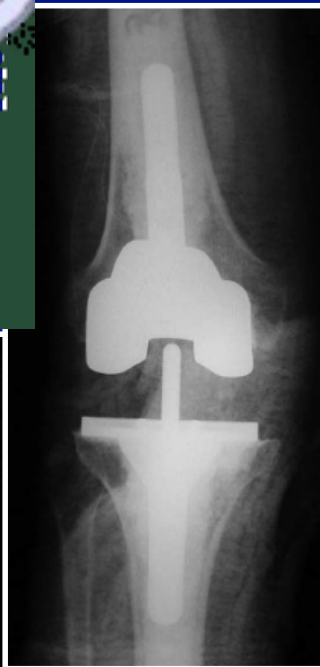
Results of Revision TKA for Stiffness

- Modest gains in ROM and function
- 17- 30 degree improvement in arc of motion
- Most knees still can not flex > 90 degrees
- *Kim et al JBJS 86A, 2004*
- *Mont et al. CORR 446, 2006*
- *Keeney et al CORR 440, 2005*
- *Ries et al CORR 380, 2000*
- *Williams et al CORR 331, 1996*
- *Haidukewych et al J Arthroplasty 20, 2005*
- *Christenson et al J Arthroplasty 17, 2002*



ANTONIO BANDERAS CATHERINE ZETA-JONES
THE LEGEND OF ZORRO

Back to the patient evaluation



Does Concomitant Low Back Pain Affect Revision Total Knee Arthroplasty Outcomes?

Wendy M. Novicoff PhD, David Rion BS,
William M. Mihalko MD, PhD, Khaled J. Saleh MD, MSc

Despite these limitations, our data suggest patients with low back pain have lower functional and outcome scores after rev-TKA than those without low back pain and generally recover more slowly in terms of function than patients without low back pain. Although all patients,



Dial 911: Medical Doctors



- BMI
- Diabetes
- Alcohol
- Tobacco
- Osteoporosis



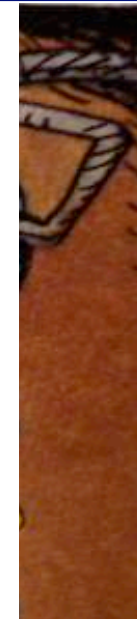
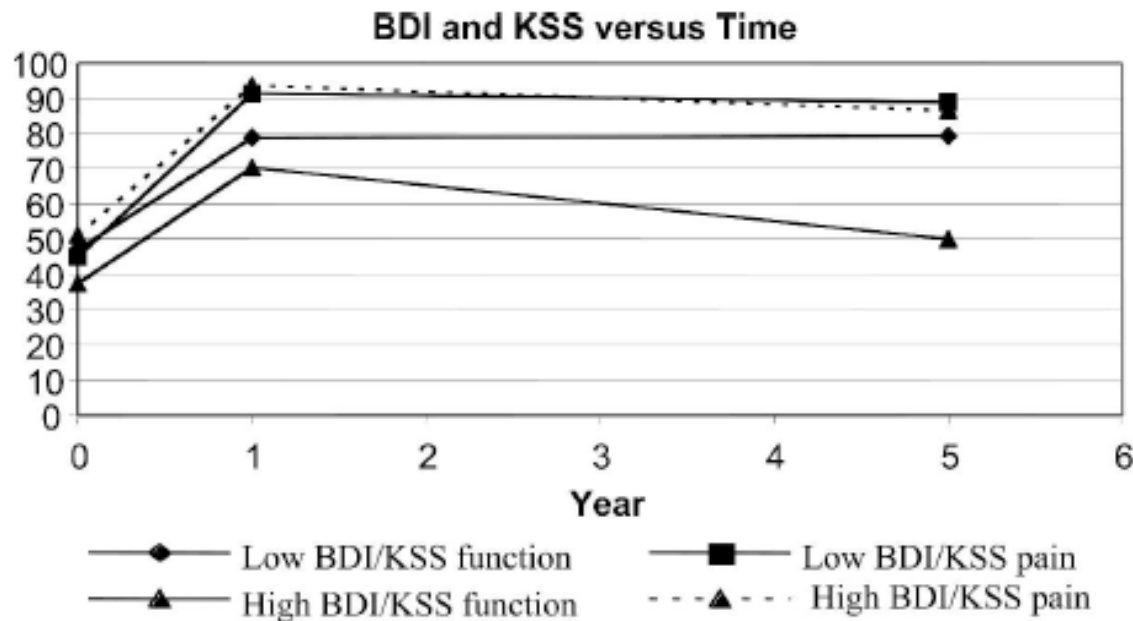
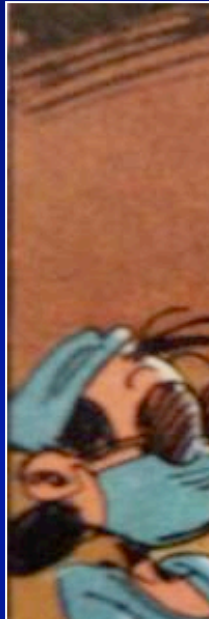
Patterns of Functional Improvement After Revision Knee Arthroplasty

By Hassan M.K. Ghomrawi, PhD, MPH, Robert L. Kane, MD, Lynn E. Eberly, PhD, Boris Bershadsky, PhD, Khaled J. Saleh, MD, MSc, FRCSC, MHCM, and the North American Knee Arthroplasty Revision (NAKAR) Study Group*

We found few significant predictors of functional improvement. The number of reported comorbidities was the most significant predictor of outcomes, forecasting less improvement of all six measures.

These conclusions are important because they distinguish modes of failure that are rectifiable by revision surgery and the correction of which improves function from modes of failure that are not rectifiable and therefore become a threat to the outcomes of revision surgery. Further research is needed in this area.

Call a friend psychologist



CLINICAL ORTHOPAEDICS AND RELATED RESEARCH
Number 464, pp. 21-26
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THE JOHN INSALL AWARD

Pain and Depression Influence Outcome 5 Years after Knee Replacement Surgery

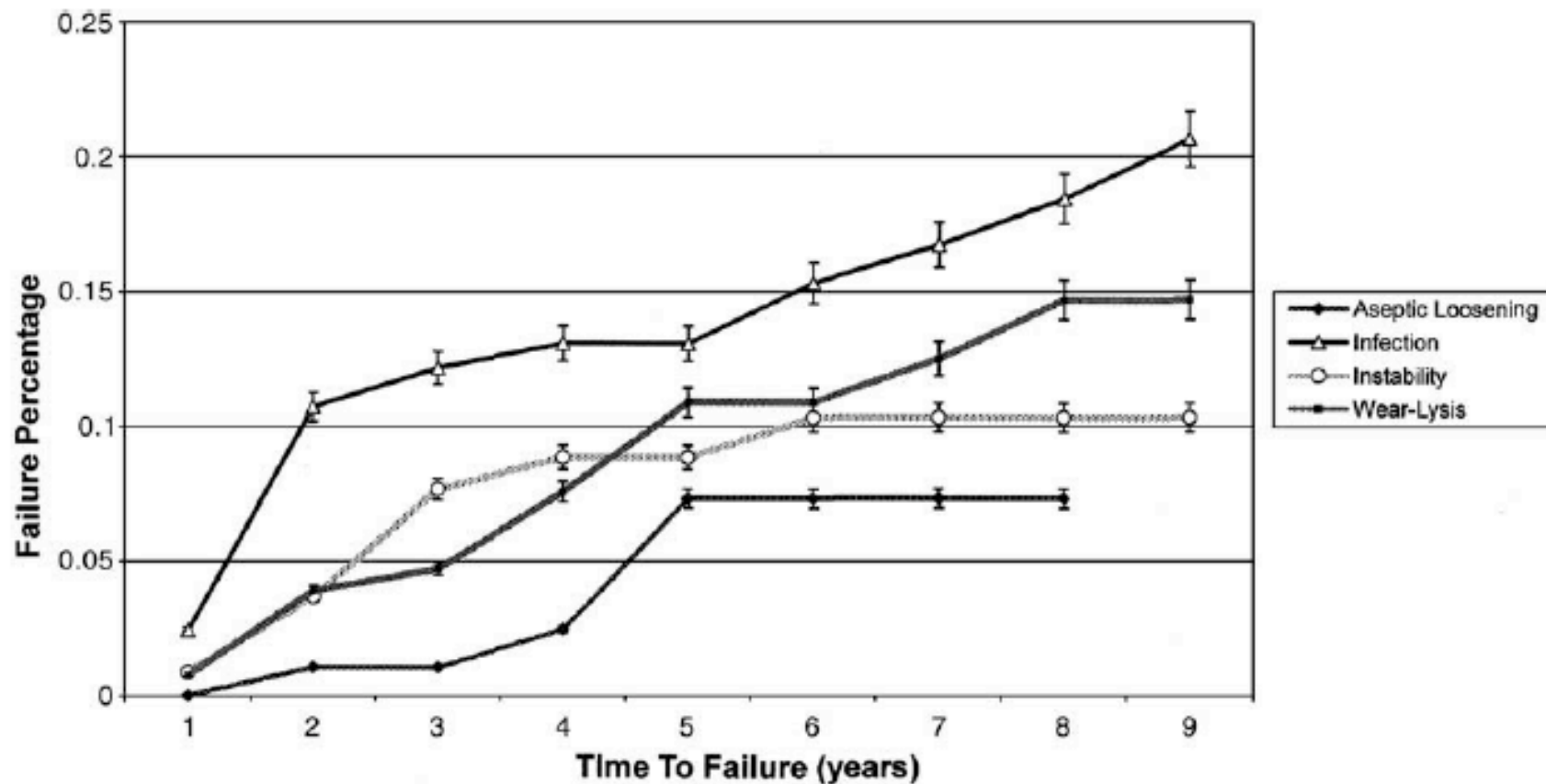
Victoria Brander, MD; Stephen Gondek, MS; Emily Martin, MS; and S. David Stulberg, MD



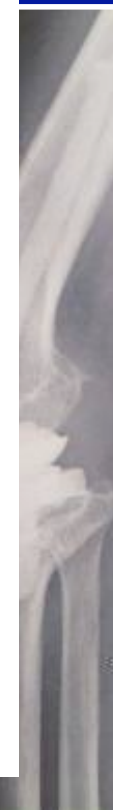
Infection? Always and ever

The Journal of Arthroplasty Vol. 23 No. 6 Suppl. 1 2008

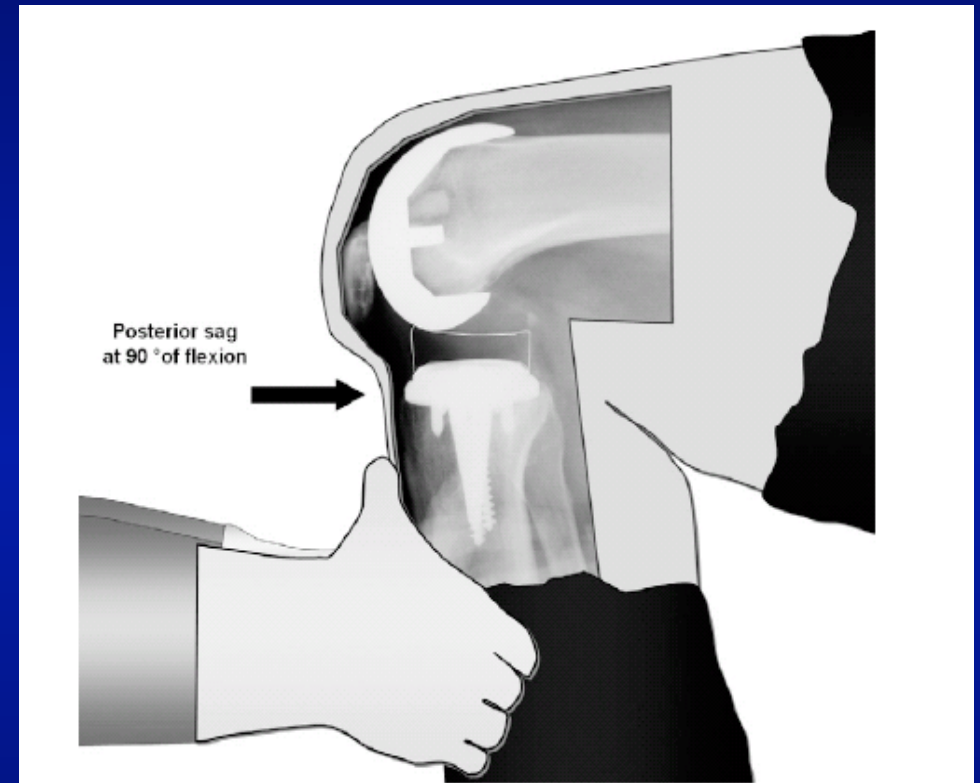
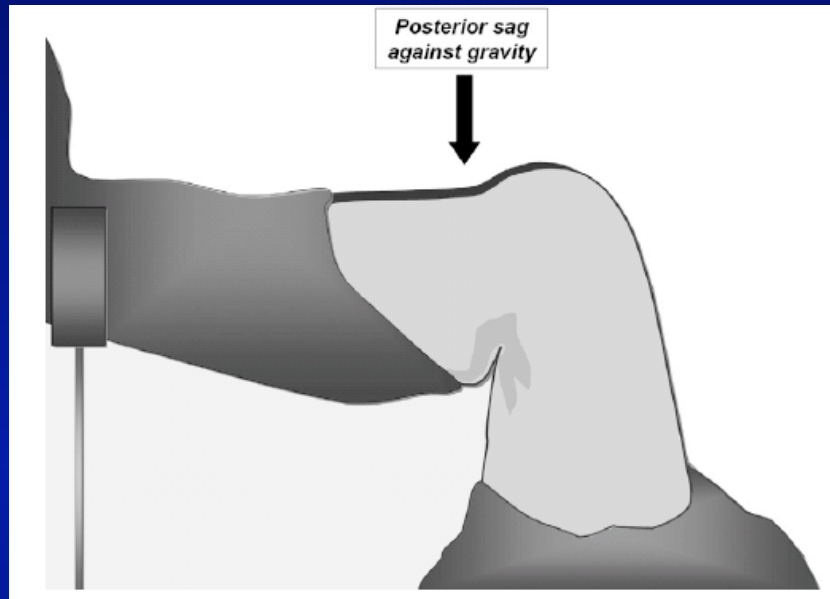
Why Do Revision Knee Arthroplasties Fail?



ion



Instability? Always and ever



THE JOURNAL OF BONE & JOINT SURGERY • JBJS.ORG
VOLUME 90-A • NUMBER 1 • JANUARY 2008

Instability After Total Knee Arthroplasty

By Sebastien Parratte, MD, and Mark W. Pagnano, MD

An Instructional Course Lecture, American Academy of Orthopaedic Surgeons

“Wait is an emergency”

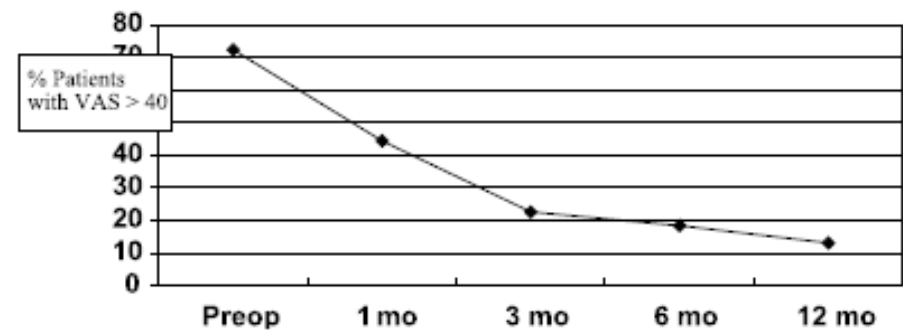
RANAWAT AWARD PAPER

CLINICAL ORTHOPAEDICS AND RELATED RESEARCH
Number 416, pp. 27–36
© 2003 Lippincott Williams & Wilkins, Inc.

Predicting Total Knee Replacement Pain

A Prospective, Observational Study

Victoria A. Brander, MD†§; S. David Stulberg, MD*,**†‡;
Angela D. Adams, BA*,**; R. Norman Harden, MD§; Stephen Bruehl, PhD†;
Steven P. Stanos, DO§; and Timothy Houle, PhD§*



Prospective study of 116 patients

13.1% had unexplained pain one year after surgery

After conservative treatment, nearly all of these patients were satisfied at 5-years follow-up

“Wait is an emergency”



A conservative approach is feasible in unexplained pain after knee replacement

A SELECTED COHORT STUDY

D. W. Elson,
I. J. Brenkel

24 patients with unexplained pain
Out of 622 from the same department

At five-years follow-up : 50% improved

Multimodal pain control approach ?



■ REVIEW ARTICLE

The management of patients with painful total knee replacement

A. D. Toms,
V. Mandalia,
R. Haigh,
B. Hopwood

The management of painful TKR often requires a multi-disciplinary approach including surgeons, physiotherapists, occupational therapists, specialist pain management teams and the patient's general practitioner.

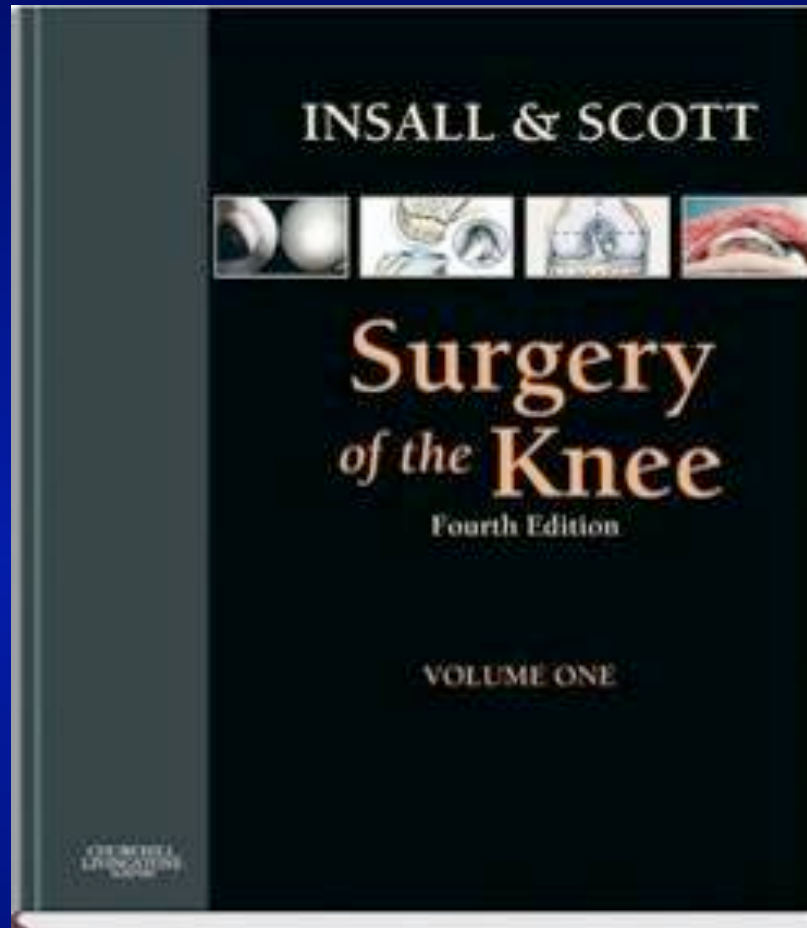
Magnetism and hand appliance



Success of TKA



Knee Osteoarthritis



Patient ?

We do not « learn the patient »

Conclusion

- **Revision for mechanical reason: not as good as a primary TKA**
- **Results of revision for infection: treat the infection**
- **Results of revision TKA for « Unexplained pain »
BAD**
- **No diagnosis = no revision**