Indications for and outcome of RHK for severe valgus deformity

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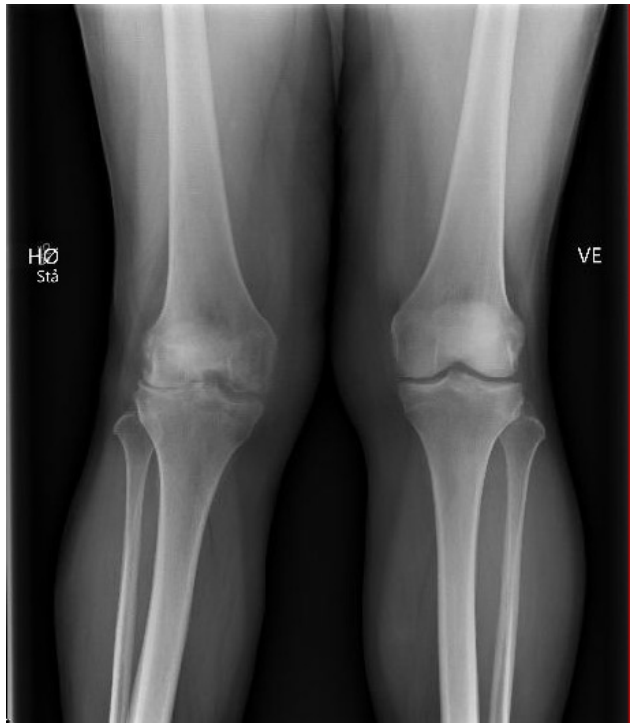
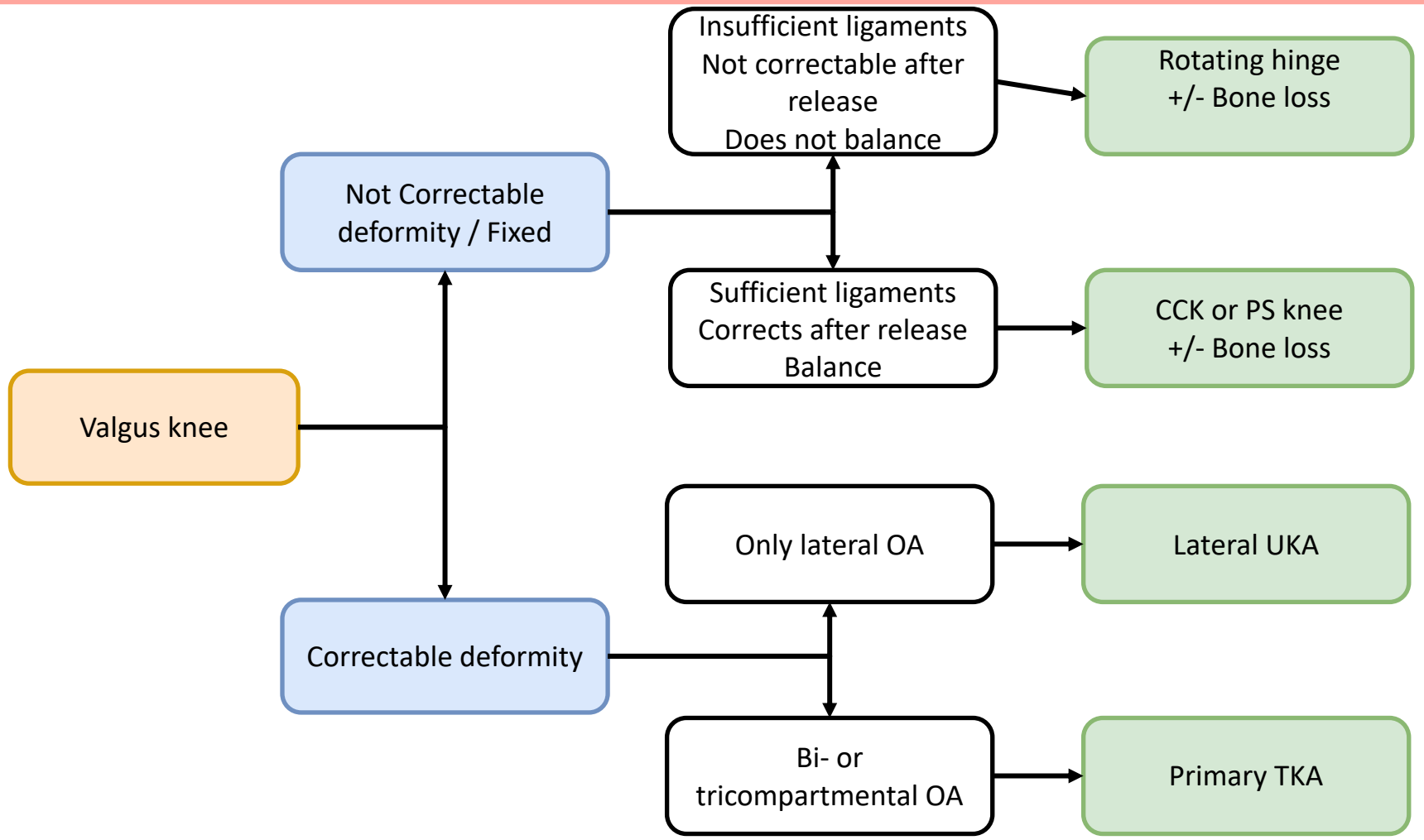
Is the deformity correctable?

Concept choices in valgus knees – my view





Indications for primary Rotating Hinge Knee (RHK)

"To our knowledge, indications for rotating-hinge devices in primary TKA are very vague and barely reported in literature."

"…ligamentous tibiofemoral instability is the core indication"

Acta Orthop. Belg., 2018 **84**, 245-250

ORIGINAL STUDY

Indications for primary rotating-hinge total knee arthroplasty. Is there consensus?

Jan DAUWE, Hilde VANDENNEUCKER

From the University Hostipals Leuven, Belgium

Indications for primary Rotating Hinge Knee (RHK)

Suggested indications:

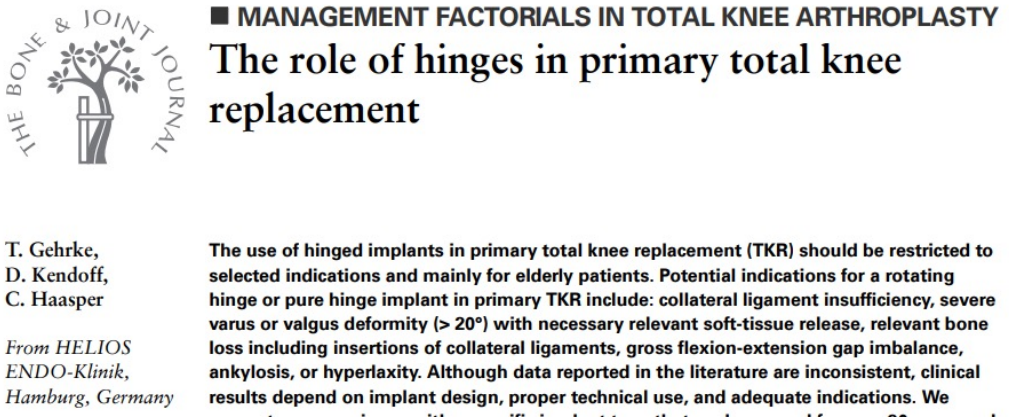
- Collateral ligament insuffiency
- Severe varus/valgus (> 20 dgr) after releases
- Bone loss (affection of collaterals)
- Gross flexion-extension gap imbalance
- Hyperlaxity
- Ankylosis

Indications for primary Rotating Hinge Knee (RHK)

Indications:

- **Bony destruction - tibial plateau or femoral condyles**
- **Hyperlaxity**
- **Fixed valgus/varus deformity >20°**
- **Severe rheumatoid arthritis**

- **? Elderly patients**



THE BONE & JOINT JOURNAL

■ MANAGEMENT FACTORIALS IN TOTAL KNEE ARTHROPLASTY

The role of hinges in primary total knee replacement

T. Gehrke,
D. Kendoff,
C. Haasper

From HELIOS ENDO-Klinik, Hamburg, Germany

The use of hinged implants in primary total knee replacement (TKR) should be restricted to selected indications and mainly for elderly patients. Potential indications for a rotating hinge or pure hinge implant in primary TKR include: collateral ligament insufficiency, severe varus or valgus deformity (> 20°) with necessary relevant soft-tissue release, relevant bone loss including insertions of collateral ligaments, gross flexion-extension gap imbalance, ankylosis, or hyperlaxity. Although data reported in the literature are inconsistent, clinical results depend on implant design, proper technical use, and adequate indications. We

Valgus knees – severe valgus?

Total Knee Arthroplasty for Severe Valgus Deformity

Surgical Technique

By Amar S. Ranawat, MD, Chitranjan S. Ranawat, MD, Mark Elkus, MD, Vijay J. Rasquinha, MD, Roberto Rossi, MD, and Sushrut Babhulkar, MD

Investigation performed at the Department of Orthopedic Surgery, Lenox Hill Hospital, New York, NY

Ranawat classification of valgus deformity:

Type I:
- <10°, correctable deformity

Type II:
- 10°-20°, contracted lateral tissue, elongated MCL → Potentially RHK

Type III:
- >20°, tight lateral tissue, non-functional MCL → RHK

Patient Reported Outcome – Rotating Hinge Knee

Mean followup = 28 months
Minimum followup = 24 months

All RHK (n= 202)
- Mean OKS 37.71 (sd: 9.23)
- Mean FJS 63.65 (sd: 31.01)

RHK in varus/valgus >15° (n= 87, 61→ valgus)
- Mean OKS 41.85 (sd: 5.90)
- Mean FJS 78.71 (sd: 25.26)

International Orthopaedics (2021) 45:2893–2897
https://doi.org/10.1007/s00264-021-05162-7

ORIGINAL PAPER

Check for updates

Patient-reported outcomes after primary rotating hinge total knee arthroplasty: a multi-centre clinical cohort study

Jan Dauwe[1] · Bruno Vandekerckhove[2] · Robin Bouttelgier[3] · Lukas A. Holzer[4] · Dirk Dauwe[5] · Hilde Vandenneucker[1]

Received: 18 May 2021 / Accepted: 17 July 2021 / Published online: 29 July 2021

Survival in primary Rotating Hinge Knees

Contents lists available at ScienceDirect

Orthopaedics & Traumatology: Surgery & Research

journal homepage: www.elsevier.com

Review article

Rotating-hinge knee prosthesis as a viable option in primary surgery: Literature review & meta-analysis

Ali Abdulkarim[a,*], Anna Keane[b], Shu Yang Hu[b], Lachlan Glen[b], Dermot J. Murphy[c]

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ARTICLE INFO

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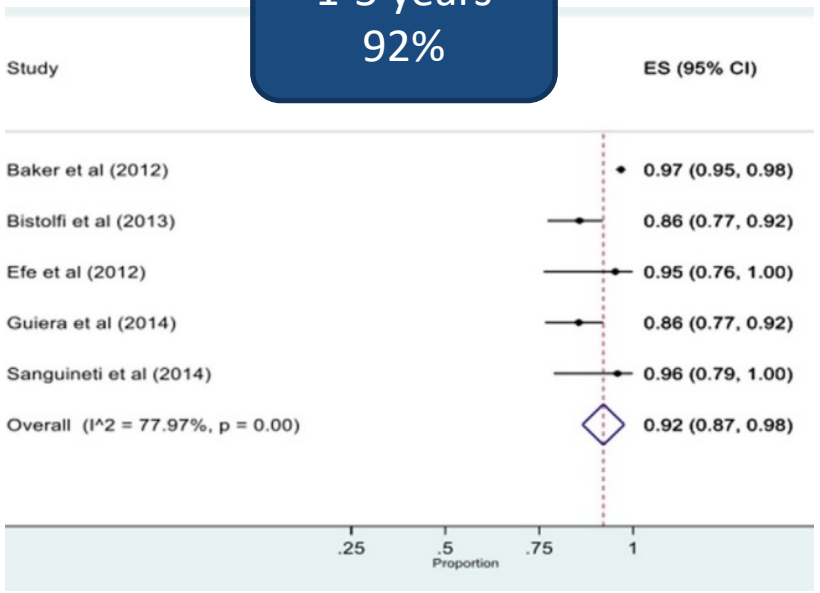
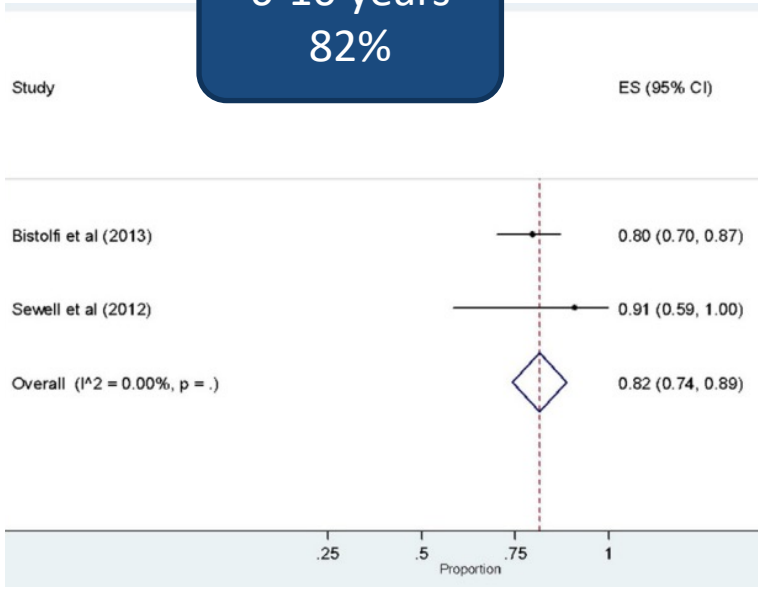
ABSTRACT

Background: Rotating-hinge knee replacements are usually reserved for revision surgeries, when the extent of soft tissue loss makes a constrained implant more suitable. They remain an uncommon choice

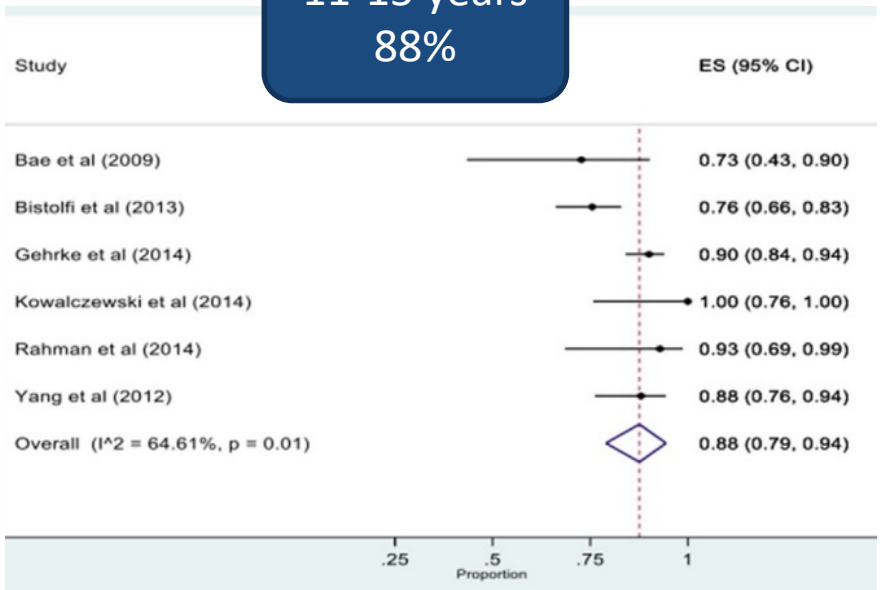
1-5 years 92%



6-10 years 82%



11-15 years 88%



Survival in primary Rotating Hinge Knees

Rotating Hinge Knee
n= 246

10 years
74.6%

20 years
40.3%

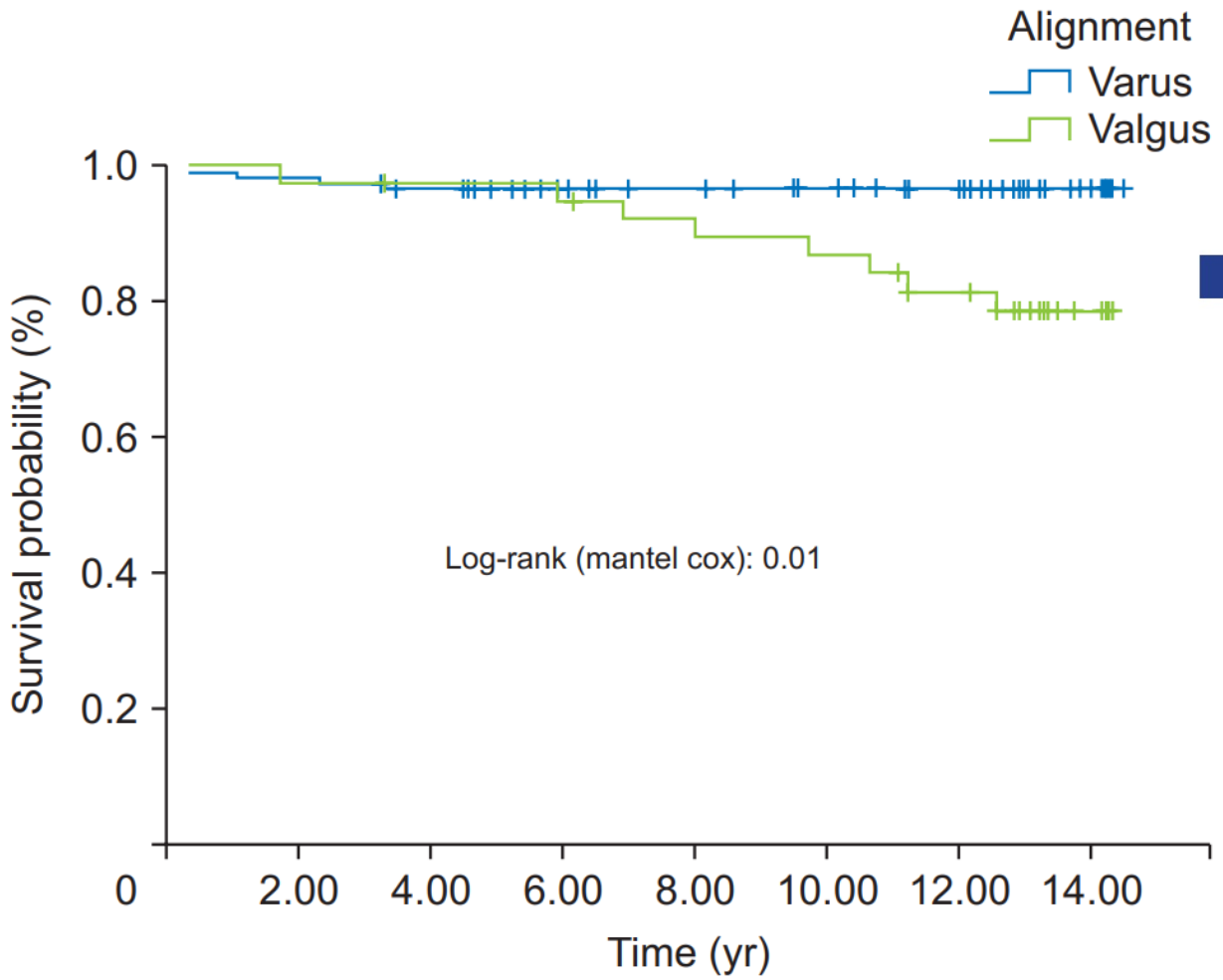
A commentary by Harry B. Skinner, MD, PhD, is linked to the online version of this article at jbjs.org.

Complex Primary Total Knee Arthroplasty: Long-Term Outcomes

J. Ryan Martin, MD, Taylor R. Beahrs, MD, Casey R. Stuhlman, MD, and Robert T. Trousdale, MD

Investigation performed at the Mayo Clinic, Rochester, Minnesota

Survival in primary Rotating Hinge Knees – only valgus deformity



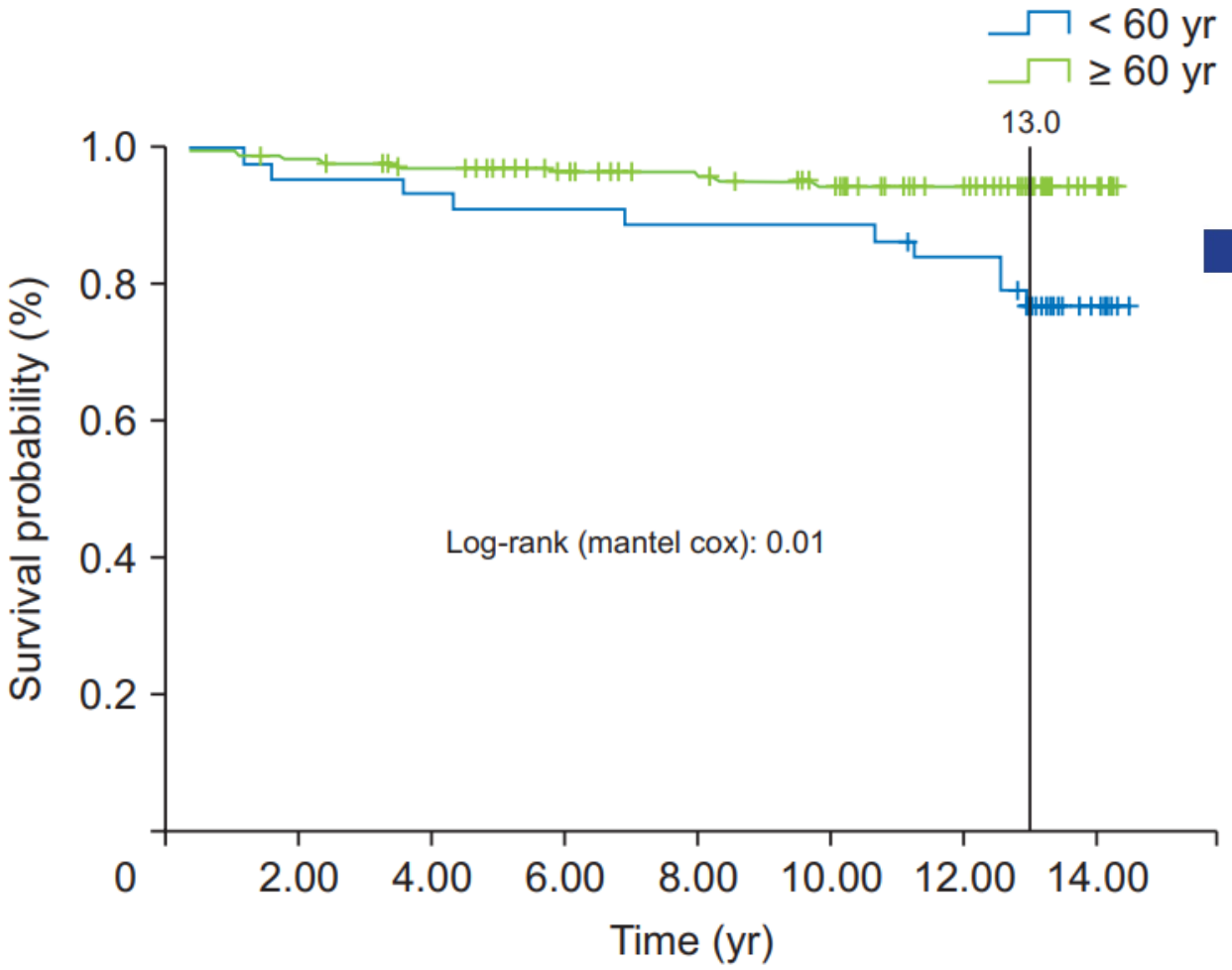
Original Article Clinics in Orthopedic Surgery 2020;12:464-469 • https://doi.org/10.4055/cios19153

Management of Gonarthrosis with a Rotating Hinge Prosthesis: Minimum 10-Year Follow-up

Daniel Kendoff, MD, Carl Haasper, MD, Thorsten Gehrke, MD,
Wolfgang Klauser, MD, Nemandra Sandiford, FRCS (Tr/Orth)*

Orthopaedic Department, ENDO-Klinik, Hamburg, Germany,
**Joint Reconstruction Unit, Southland Hospital, Invercargill, New Zealand*

Survival in primary Rotating Hinge Knees – age



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Check for updates

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Survival in primary Rotating Hinge Knees – valgus and <60

Combination of age>60 + varus:

- 95% survival after 13 years.

Combination of age <60 + valgus:

- 64% survival after 13 years.

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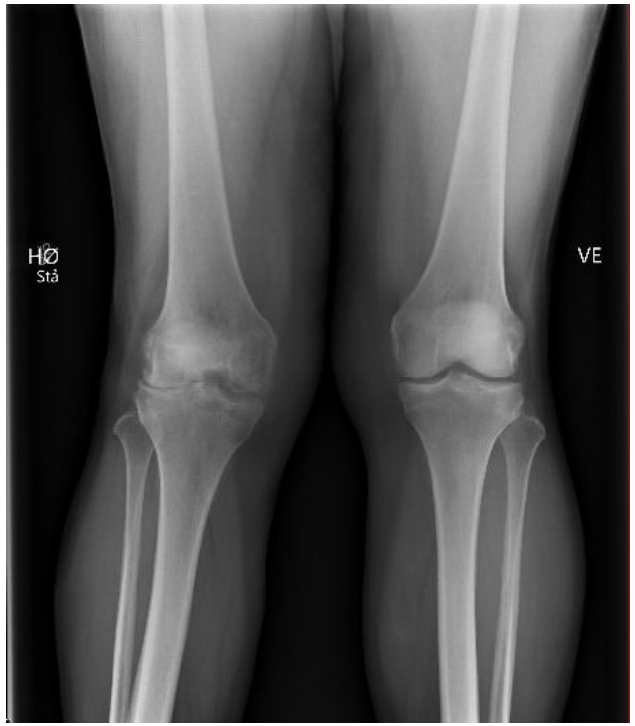

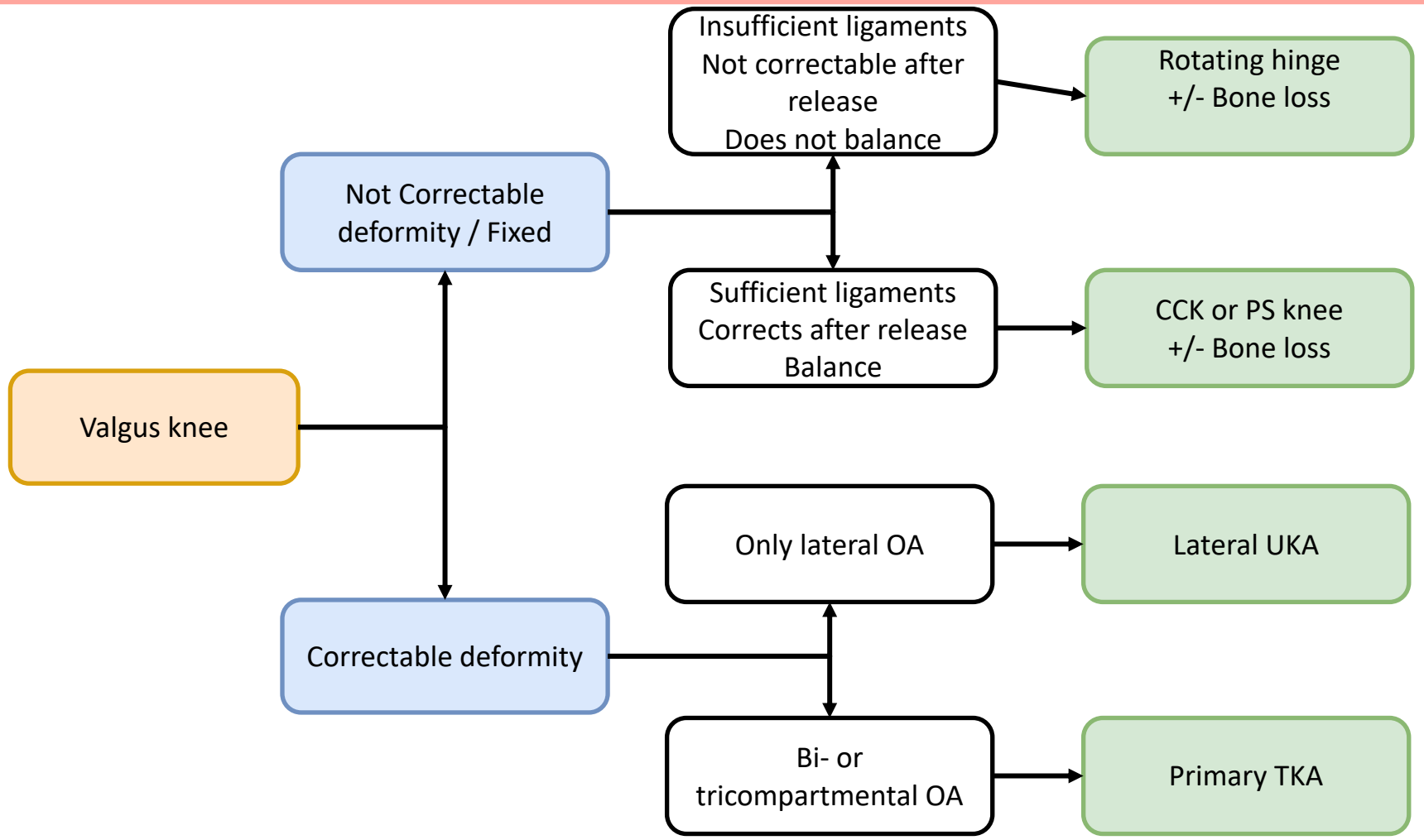

Thank you

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CORH Clinical Orthopaedic Research Hvidovre Copenhagen University Hospital

ROAD Research in OsteoArthritis Denmark
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