

Role of arthroscopy to choose operation

TKR Versus Uni

Myles Coolican

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Thanks


- * Francois and Philippe
- * Faculty
- * Audience
- * Audiovisual Pierre and Vincent



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As something to help remember

- * All talks
- * References utilized in talks

Are with Corine as PDF files
Will be available to all registrants

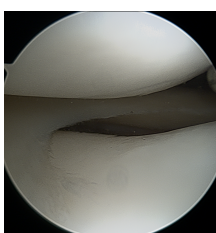


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Arthroscopy

TKR V Uni

- * Does arthroscopy have a role in determining whether total knee or unicompartmental replacement is the better option?
- * Are there any less invasive methods to evaluate the other compartments?
- * Are they as good or better than arthroscopy




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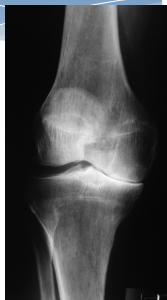


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Arthroscopy Uni V TKR

Should we be performing a Uni

- * Are uni's better
- * Are uni's cheaper
- * Do they survive as long as TKR
- * Are there any other alternatives
- * What do we know of their outcomes




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Arthroscopy Uni V TKR

Should we be performing a Uni


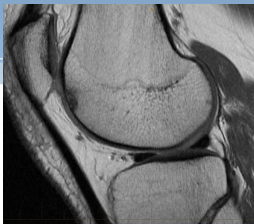
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Arthroscopy TKR V Uni

Cartilage evaluation

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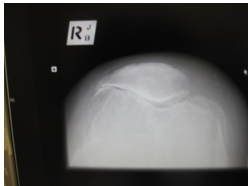
Arthroscopy TKR V Uni

Evaluation of articular cartilage and menisci with MRI

- * 3 planar standard sequence
- * Gadolinium-DGEMRIC
- * T2 relaxation time
- * UTE* - Ultra short Echo Time
- * T1 Rho

Scoring Systems

- * WORMS
- * BLOKS
- * MOAKS



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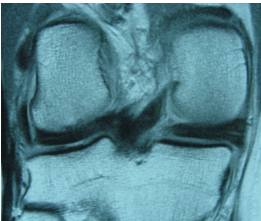
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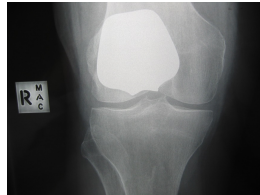
Arthroscopy TKR V Uni

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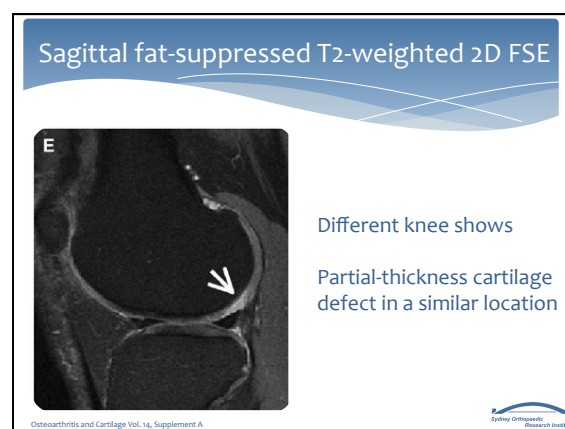
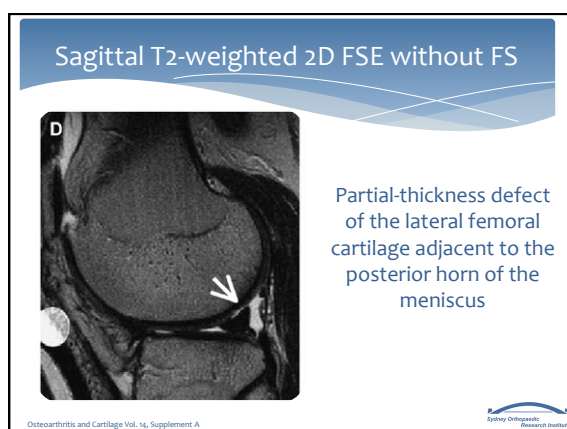
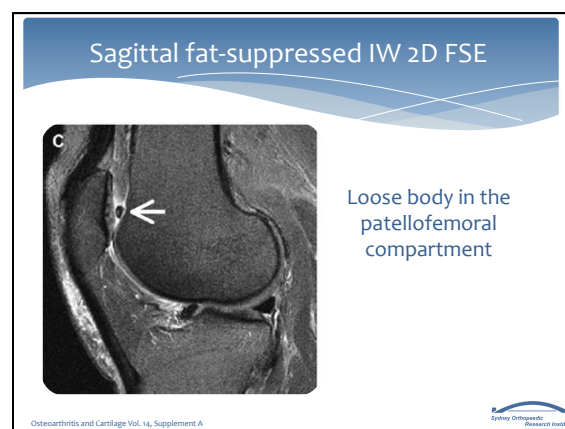
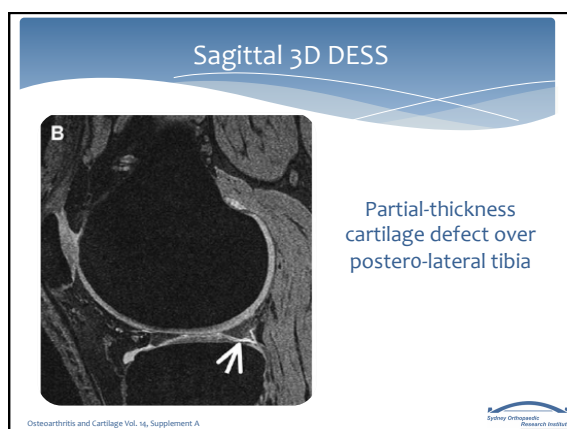
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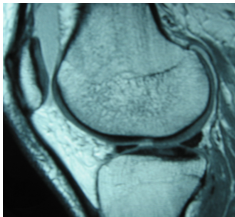
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MRI and Articular Cartilage/Menisci

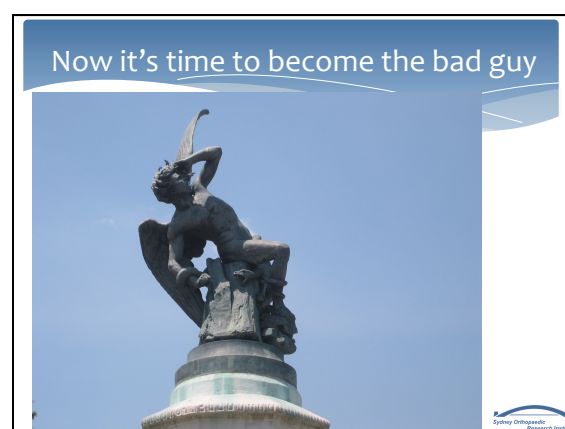
Summary

- * Just as good as arthroscopy
- * Cheaper
- * Non invasive
- * Possibly better for hard to get to areas
- * Eliminates extra surgical step



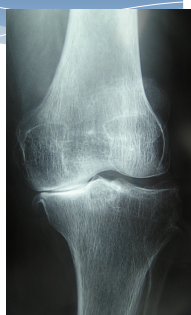
Osteoarthritis and Cartilage Vol. 14, Supplement A

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Arthroscopy Uni V TKR

- * Uni's were popularised in 70's
- * Marmour-80% 10 year survival
- * Fell out of favour
- * Resurgence in late 90's
- * Oxford group-projected 97%
- * Minimally invasive
- * Cheaper implant
- * In countries with registries-again falling from grace




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Arthroscopy TKR V Uni

Significant Issues

- * Does an average uni have better function than an average TKR?
- * Is survivorship different?
- * Are they cheaper
- * How easy is it to convert a failed Uni to a TKR?
- * What are the results of conversion to TKR?
- * Conversion of HTO to TKR




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Arthroscopy TKR V Uni

UKR Patient

- * Stable
- * No flexion deformity
- * Low BMI
- * No polyarthritis
- * Other compartments pristine
- * Pretty

WINNERS



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Arthroscopy TKR V Uni

- * Total knee replacement is the fall back option

Works in presence of

- * Morbidly obese
- * Big flexion contracture/ deformity
- * ACL rupture
- * Other compartments worn
- * Other contra indications to Uni

IS IT A FAIR COMPARISON?



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PROMS - Oxford

2013 UK Joint Registry	Median Oxford Score (IQR)	
	Preop	Postop (6.47 months)
Total Knee Replacement	19 (13-24)	36 (28-42)
Unicompartmental Knee Replacement	21 (15-26)	38 (29-44)

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Arthroscopy UKR V TKR

Are Uni's better

Baker et al

- * 23,393 TKR and 505 UKR from UK JRR at median 6.6 months
- * Compared improvements in Oxford and European QOL
- * Greater improvements in TKR
- * Adjusted for case-mix and preop scores-not significant

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Arthroscopy UKR V TKR

Uni's are no better

- * Lygre et al Norwegian registry
- * Robertsson et al-Swedish Registry
- * Matthews et al-better scores but equal patient satisfaction

Unis are better

- * Pearce et al NZ registry
- * Von Keudell et al-for under 55 Over 65 equal

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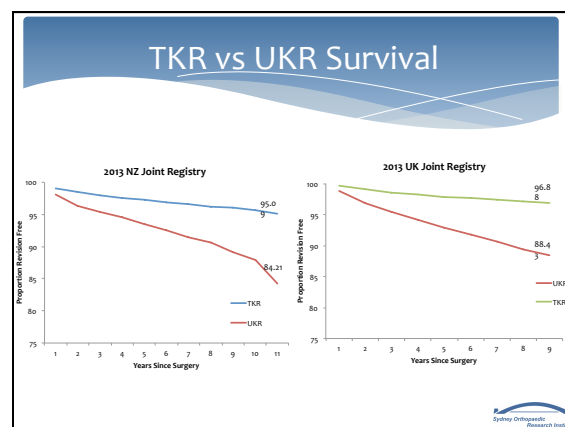
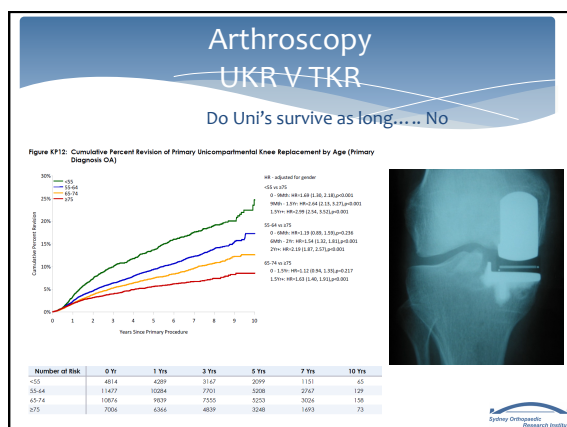
Arthroscopy UKR V TKR

Are Uni's cheaper

Koskinen et al 2008 Finnish Registry

- * TKR 80% survival at 15 years
- * Uni's 60% survival at 15 years
- * Cost savings of initial implant and shorter stay did not cover the added burden of higher revision rate

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Results of Uni converted to TKR

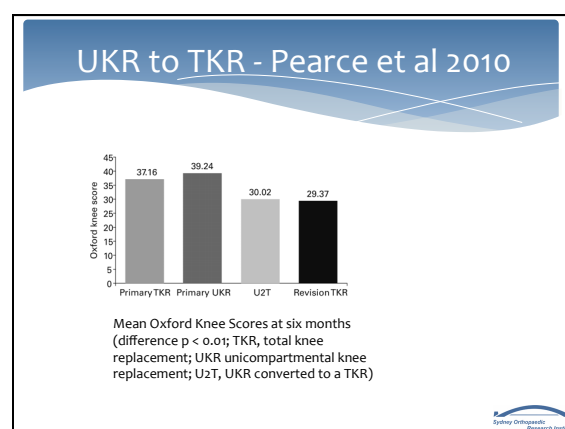
Pearse et al NZ Registry

- * Uni to TKR compared to Primary
- * Revision rate 4 times that of Primary TKR
- * Poorer outcome scores Oxford 30 V 37
- * Uni converted to Uni-13 times revision

Chou et al

- * 69% survival at 5 years
- * Revisions more difficult
- * Outcomes inferior

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Results of HTO converted to TKR

- * Efe et al 2010 Musculoskeletal Disorders
- * 41 matched pairs primary TKR & post HTO
- * Minimum 6 years
- * Clinical scores and radiographs



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Results of HTO converted to TKR

No Differences

- * Operation time
- * Complication rare
- * VAS
- * WOMAC
- * Lequesne
- * UCLA
- * SF36
- * Feller patellar score

Difference

Knee Society Score
Range of motion
Patellar height 3 alta 1 baja HTO
One radiological loosening HTO

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Results of HTO converted to TKR

Conclusion

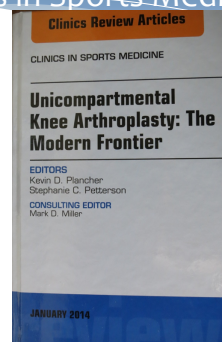
The results of TKR with and without prior HTO are mainly identical

Authors agreeing

- * Bergenudd et al
- * Haddad et al
- * Meding et al
- * Filho et al CW & OW similar

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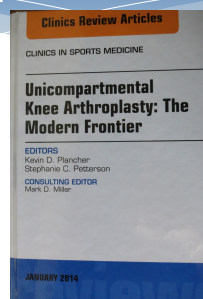
Clinics in Sports Medicine



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Arthroscopy Uni v TKR

- * Kevin and Mark
- * Who are you kidding
- * That frontier has been conquered
- * By the countries that have registries
- * Don't repeat our mistakes
- * Do it once
- * Do it properly
- * With a TKR

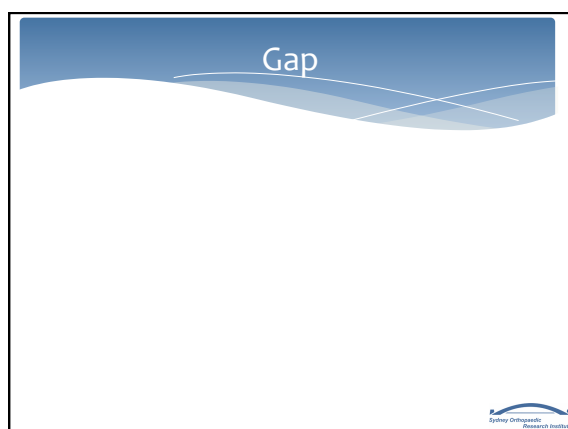


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Thank you




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Franco will tell you

Uni's do badly in Australia because

- * Surgeons are incompetent
- * Patients are too fat
- * Decision to convert a uni to a total is rubbery



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