



Bilateral Simultaneous Unicompartmental Knee Arthroplasty. Midterm Results in 86 Arthroplasties with an Average Follow-Up of 6.2 Years



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**Gaggiotti Gabriel – Gaggiotti Stéfano –
Gaggiotti Santino – Ringa Julio**
gabrielgaggiotti@hotmail.com
stefanogaggiotti72@gmail.com

COT – Centro de Ortopedia y Traumatología Rafaela y COT
Santa Fe, Argentina



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- Authors:

Dr. Gaggiotti Gabriel gabrielgaggiotti@hotmail.com

Dr. Gaggiotti Stéfano stefanogaggiotti72@gmail.com

Dr. Gaggiotti Santino

Dr. Ringa Julio



IG gg_knee_team

- Centre:

COT – Centro de Ortopedia y Traumatología Rafaela y COT Santa Fe,
Argentina

- No conflict of interest or company affiliations reported



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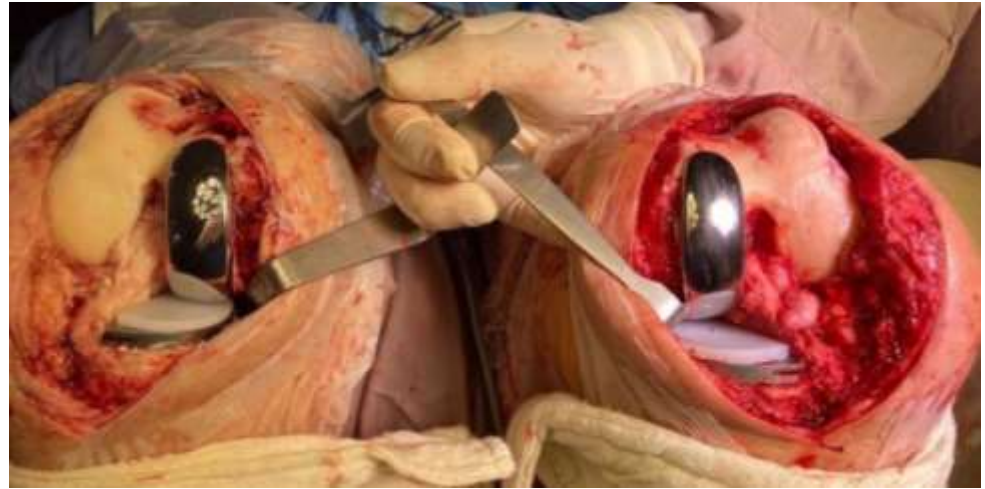
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Introduction

- [Bilateral simultaneous unicompartmental knee arthroplasty \(bUKA\)](#)

benefits:

- Single hospital admission
- Single rehabilitation time



- Purpose:

“To examine the functional results, complications and survivorship at midterm of bilateral single-stage unicompartmental knee arthroplasty in the treatment of bilateral knee osteoarthritis”

Methods

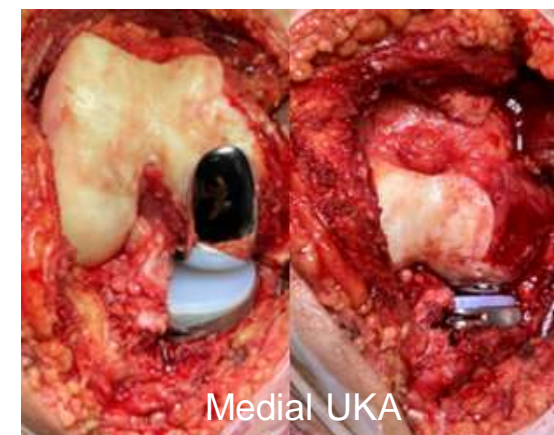
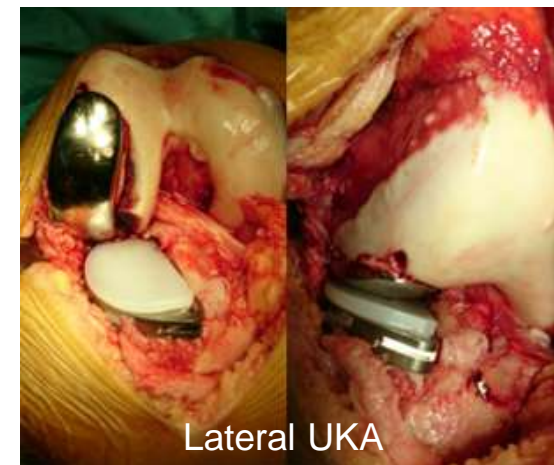
- Retrospective report
- All medial or lateral bUKA between January 2004-2020
- Minimum follow-up of 1 year
- Evaluation:
 - KSS score system 2011
 - Serial radiographs
 - Transfusion requirements
 - Hospital stay
 - Complications
 - Prosthesis survivorship



N: 86 bUKA

Results

Total patients	43
Total bUKA	86
Age (years)	66.3 (50-83)
BMI	29.3 (18,6-34.8)
Follow-up (years)	6.2 (1.1-17)
Gender	
- Male	12 (27.9%)
- Female	31 (72.1%)
UKA	
- Medial bilateral	40 (93%)
- Lateral bilateral	2 (4,7%)
- Medial and lateral	1 (2,3%)



Results

Image. 7 years follow-up lateral bUKA

- Valgus
 - Kellgren-Lawrence 100% IV
- Varus (Ahlback)
 - 8 (9.9%) III
 - 35 (43.2%) IV
 - 38 (46.9%) V
- Patellofemoral Outerbridge:
 - II - 16 cases
 - III - 46 cases
 - IV - 24 cases



Results

	Preoperative	Postoperative	P
Clinic KSS	46.1 ± 10.2	80.9 ± 15.9	<0.005
Functional KSS	22.8 ± 11.9	89.8 ± 18.9	<0.005
Max Flexion	106.3° ± 5.2°	125.1° ± 4.2°	<0.005
Flexion contracture	7.5° ± 2.2°	2.3° ± 1.6	<0.005
Femorotibial axis			
- Varus	9° ± 2.3°	3.6° ± 1.4°	<0.005
- Valgus	14.6° ± 4.2 °	7.4° ± 2.8°	<0.005

- Surgery duration: 178.6min (150-195min)
- Hospital stay: 39.8hs (27- 48hs)
- Transfusion: 2 patients (4.7%)
- No relation between postop KSS and age, BMI, patellofemoral Outerbridge or preOP misalignment

Results

Survivorship 96,5% at 6.1 years



Complications n: 6 (6.9%)

- 2 Mobilization under anesthesia
- 4 minor wound problems

Revision n:3 (3.5%)

- Aseptic loosening after 7, 8.6 and 12 years
- 1 to UKA and 2 to TKA



Image 1. 8 years follow-up medial bUKA



Image 2. Revision to UKA

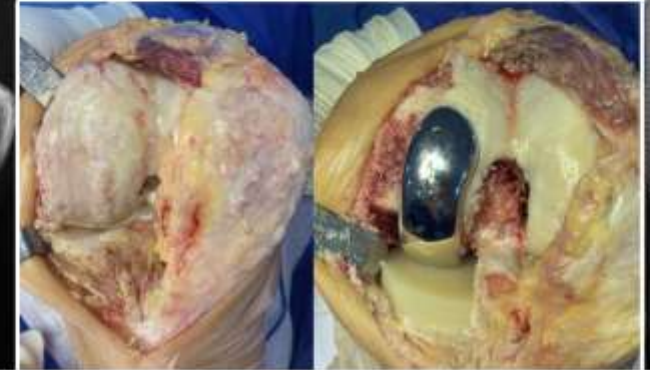
Results



Lateral UKA



Medial UKA



Discussion

	N bUKA	KSS - OKS	T QX (min)	Hospital stay (days)	Transfusion	Complications
Chan et al. (2009)	318 Oxford UKA	-	114	5	-	13 major (4.1%), 10 (3.1%) tromboembolic. NO PROFILAXIS
Berend et al. (2011)	70 Oxford UKA	Functional KSS 88	109	1.7	0	4 minor (5.7%)
Chen et al. (2013)	248 UKA	Clinic KSS 88 and functional 80 OKS 17	130	5	1 (0.8%)	5 (2%) 3 tromboembolic
Akhtar et al. (2014)	76 Oxford UKA	Modified OKS 34	83	3.5	0	1 major (1.3%) y 2 minor (2.6%)
Romagnoli et al. (2014)	440 UKA	-	61.3	4	24 (10.9%)	9 major (2%)
Winder et al. (2014)	52 UKA	-	150	3.9	-	2 major (3.8%)
Ma et al. (2015)	72 Oxford UKA	OKS 18.3	113.5	-	0	1 (1.4%) major y 2 minor (2.8%)
Ahn et al. (2017)	104 UKA	Clinic KKS 89.2 and functional 84.2	-	8.4	9 (17.3%)	1 minor (0.9%)
Siedlecki et al. (2018)	88 UKA	-	75.1	6.7	1 (2.3 %)	4 major (4.5%) y 2 minor (2.3%)
Clavé et al. (2018)	100 Oxford UKA	Modified OKS 44.5 KSS 192.6	-	-	3 (6%)	5 (5%) 60% tromboembolic
Yildiz et al. (2018)	88 Oxford UKA	OKS 39.6	-	2	-	3 (3.4%)
Feng et al. (2019)	78 Oxford UKA	Clinic KSS 88.9 and functional 80.9	120.2	4.2	1 (2.6%)	4 minor (5.1%)
Biazzo et al. (2019)	102 UKA	-	93.2		4 (7.8%)	1 major (1%) y 3 minor (2.9%)
Sakka et al. (2020)	238 Oxford UKA	-	147.1	1.1 (6.7% outpatient)	0	2 readmission (1.7%) in 90 days
Gaggiotti et al. (2021)	86 UKA	Clinic KSS 80.9 and functional 89.8	178.6	1.6	2 (4.7%)	6 minor (6.9%)

Discussion

A meta-analysis of clinical and radiological outcomes in simultaneous bilateral unicompartmental knee arthroplasty

Haowen Kwan^a, Kendrick To^{b,c}, Christine Bojanic^d, Karl Romain^a, Wasim Khan^{a,*}

^a School of Clinical Medicine, University of Cambridge, Hills Road, Cambridge, CB2 0QQ, UK

^b Division of Trauma and Orthopaedics, Department of Surgery, University of Cambridge, Addenbrooke's Hospital, Cambridge, CB2 0QQ, UK

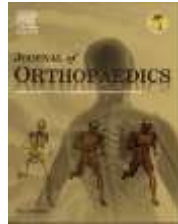
^c Department of Pharmacology, University of Cambridge, Tennis Court Road, Cambridge, CB2 1PD, UK

^d Division of Plastic and Reconstructive Surgery, Department of Surgery, University of Cambridge, Addenbrooke's Hospital, Cambridge, CB2 0QQ, UK

* Division of Trauma and Orthopaedics, Department of Surgery, Addenbrooke's Hospital, Cambridge, CB2 0QQ, UK

Journal of Orthopaedics

2021



Surgical time
Hospital stay
Costs

Significative

- Better functional results
- = complication rates
- = transfusion rates

ABSTRACT N° SOFCOT-1176

Les prothèses unicompartmentaires bilatérales en un temps donnent moins de complications cumulées qu'en un temps et coûtent moins cher. Revue systématique de la littérature.

Nicolas FUJOL¹, Yoshiki OKAZAKI¹, Camille STELTZLEN²

¹Centre Hospitalier de Versailles, Le Chesnay, France

2021



Sistematic review +1000 bUKA

Similar:

- complications
- transfusions
- reoperation/readmision

Lower costs

Conclusion



- Simultaneous bilateral unicompartmental knee arthroplasty:
 - Reliable and definitive treatment option
 - Excellent midterm results
 - Low risk of complications
 - Conservative procedure
- Crucial:
 - Surgical technique
 - Trained surgeon

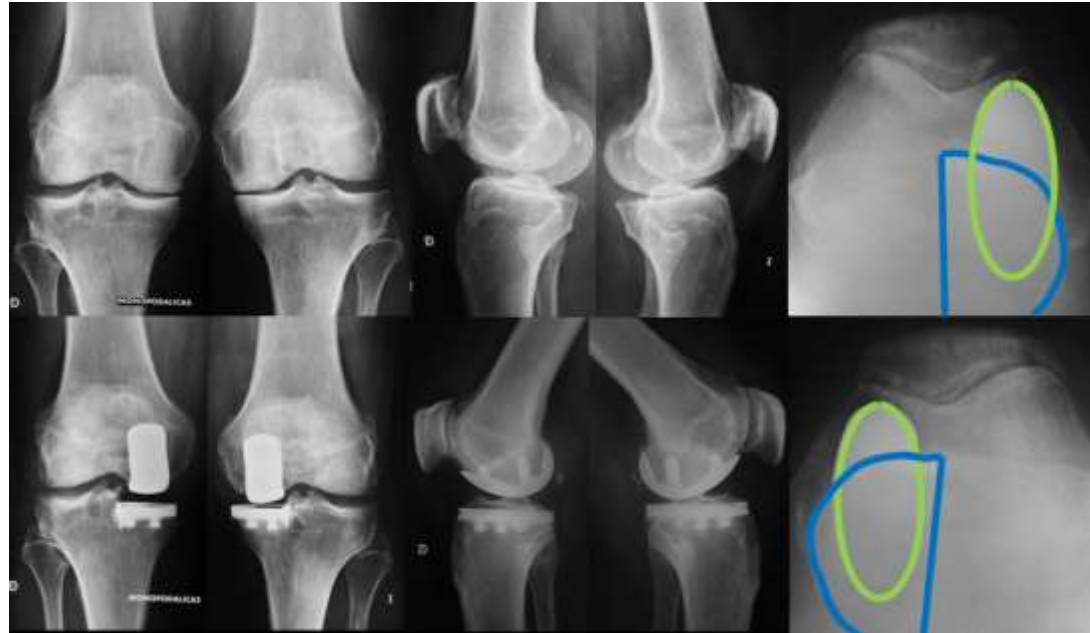


Image. Adequate alignment after 6.3 years follow-up medial bUKA.

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