Knee Arthroscopy Prior To Unicompartmental Knee Arthroplasty Does Not Cause Infection

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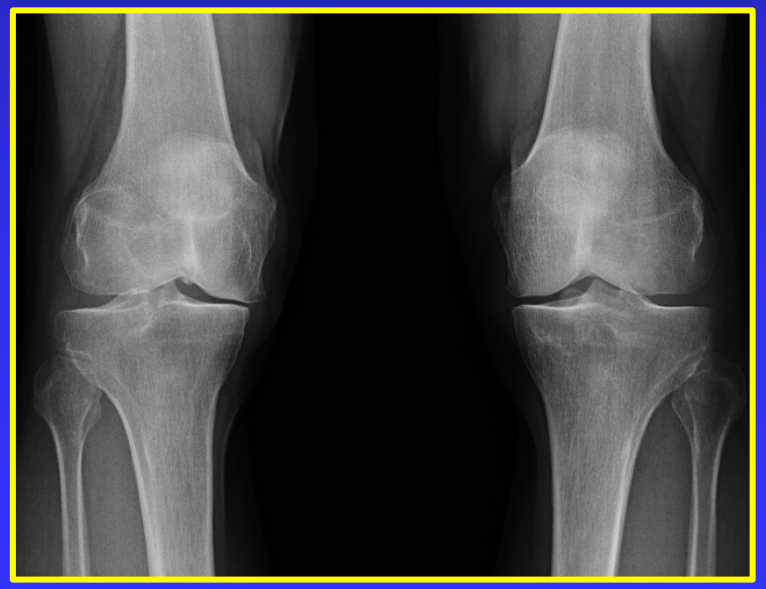
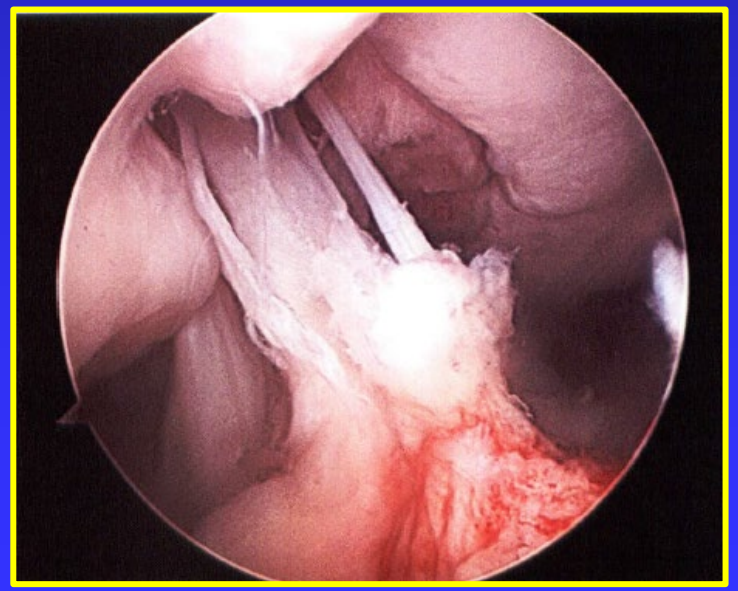
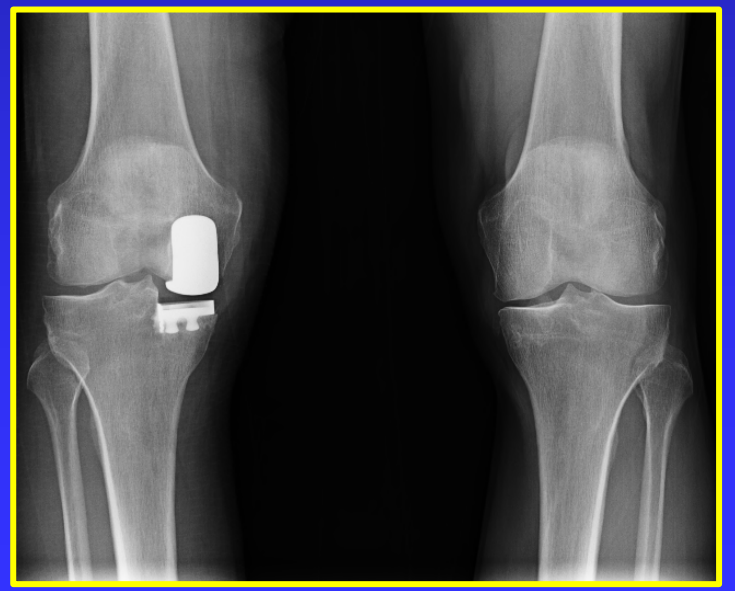




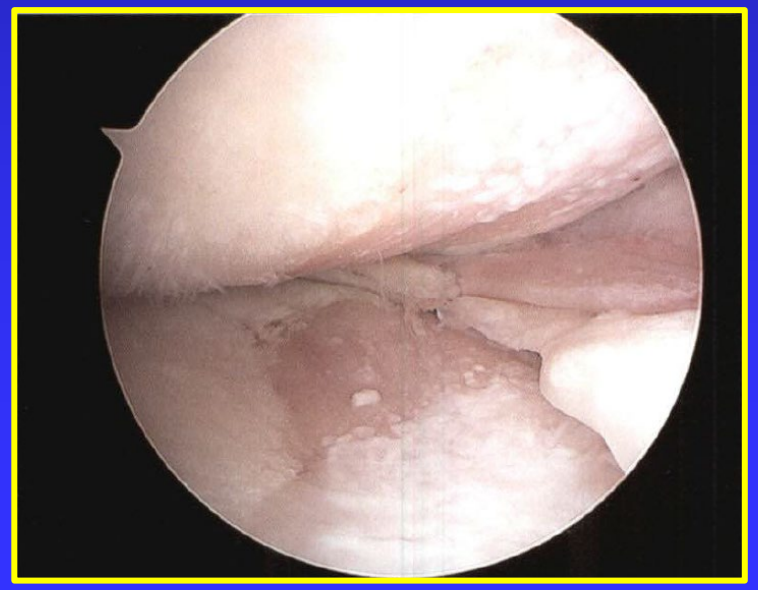


Disclosures

The author and co-authors have nothing to disclose.

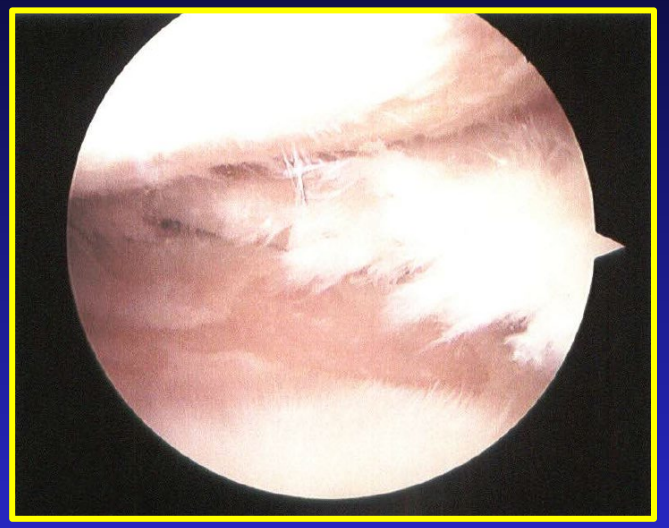
Knee Arthroscopy & UKA

- Advantages Of UKA vs. TKA
  - Shorter Length Of Stay & Recovery[1]
  - Higher Satisfaction
    - Earlier Improvements In Pain & Function[2]
  - Lower Incidence Of Infection[3,4]
- Arthroscopy A Contraindication For Arthroplasty?
  - No Consensus In The Literature
    - Preop Arthroscopy & TKA vs. TKA Alone[5]
      - Preop Arthroscopy Group
        - Higher Revision Rate - OR: 1.79
        - Higher Risk Of Infection If Within 7 Months Of TKA
    - Preop Arthroscopy & UKA vs. UKA Alone[6]
      - Higher Failure Rates At 2-Years
        - Higher Failure Rate - OR: 2.16
        - Higher Conversion To TKA - OR: 2.11
    - Same-Day Arthroscopy & UKA vs. UKA Alone[7]
      - Same-Day Group
        - Lower Incidence & Volume Of Blood Transfusion
      - No Sig. Difference In Functional Outcomes



Purpose

- To Determine If Ipsilateral Knee Arthroscopy Prior To UKA Increases Incidence Of Infection Or Failure After UKA
- Hypothesis
  - Arthroscopy Prior To UKA Will Not Yield A Significantly Higher Rate Of Infection Or Failure After UKA

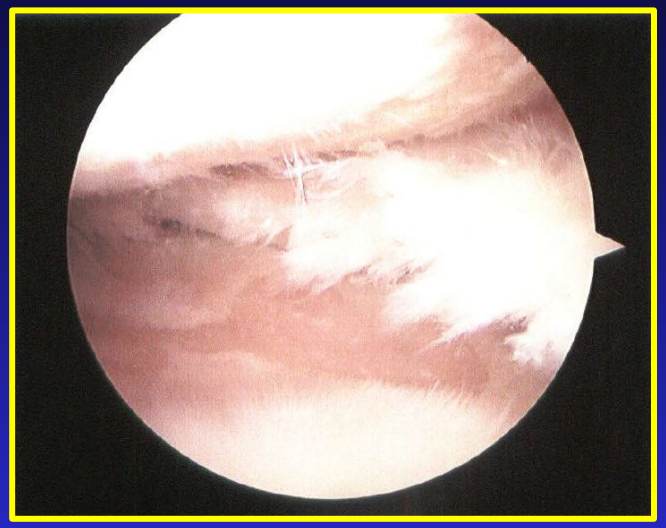


Methods

- 258 Knees Underwent UKA
  - Non-Robotic Fixed-Bearing Medial or Lateral UKA
    - ✓ With/Without Arthroscopy
      - Preoperative
      - Same Day
      - No Arthroscopy
  - Consecutive Series 2000-2020
    - ✓ Single-Surgeon (KDP)
- Exclusion Criteria
  - History Of Septic Arthritis
  - Refused To Participate
  - Deceased Or Lost To Follow-Up
  - <90-Day Follow-Up

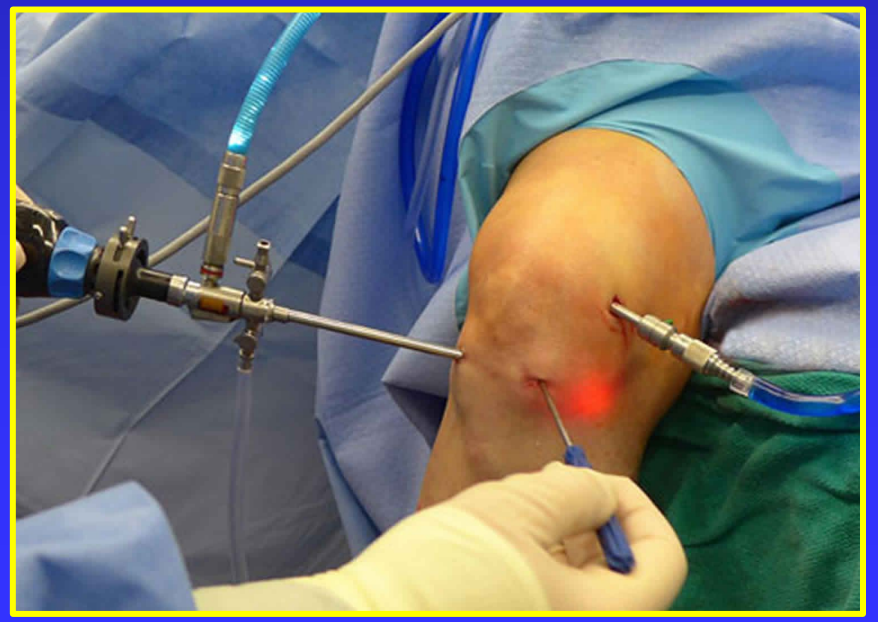
Methods

- Medical Record Review
  - Patient Demographics
    - ✓ Age At Surgery, BMI, Gender
  - Surgical Data
    - ✓ Timing Of Arthroscopy
    - ✓ Complications
      - 90-day All-Cause Infection
        - Surveillance Period Recommended By CDC[8]
      - Failure Resulting In Conversion To TKA
        - Early Failure
          - Revision Within 2 Years[9,10]
        - Long-Term Implant Survival



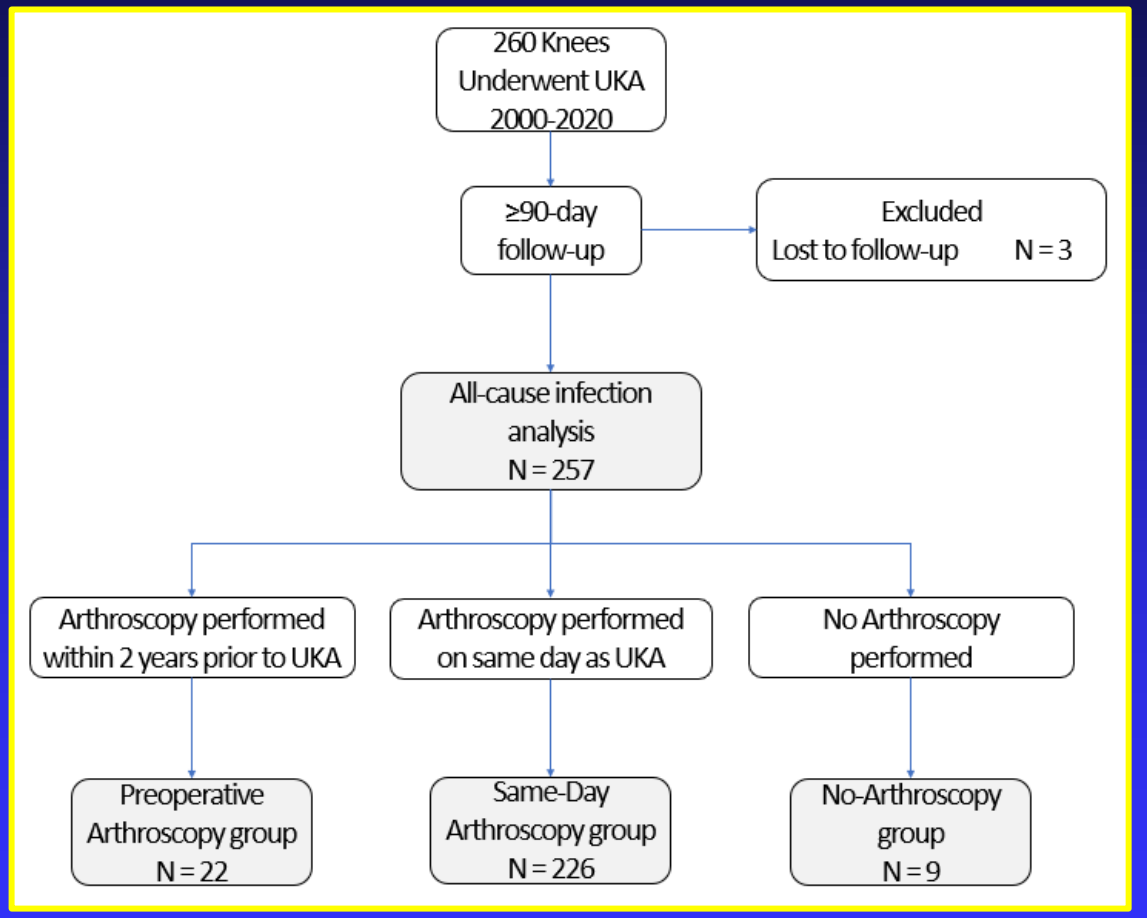
Methods - Statistical Analysis

- Chi Square Test
  - Assess Difference In Infection B/n Arthroscopy Groups
- Two-Way ANOVA
  - Differences In Age & BMI B/n Arthroscopy Groups & UKA Laterality
- Kaplan Meier Survival Curve
  - Log-Rank Test
    - ✓ Differences In Survivorship B/n Groups
- Significance: $p < 0.05$



Results - Demographics

- 257 UKA
  - 191 Medial, 66 Lateral
  - Mean F/U: 7.42 ±4.6 Years
    - ✓ Range: 91 Days To 19.32 Years
- Arthroscopy Groups
  - 22 Preop Arthroscopy
    - ✓ Mean Time To UKA: 4.4 ± 4.0 Months
    - ✓ Age: 66.4±12.2 Years; BMI 29.2±3.6
  - 226 Same-Day Arthroscopy
    - ✓ Age: 65.1±13.2 Years; BMI 27.6±4.4
  - 9 No-Arthroscopy
    - ✓ Age: 67.5±11.1 Years; BMI 29.8±3.9
      - No Sig. Difference In Age, BMI B/n Groups

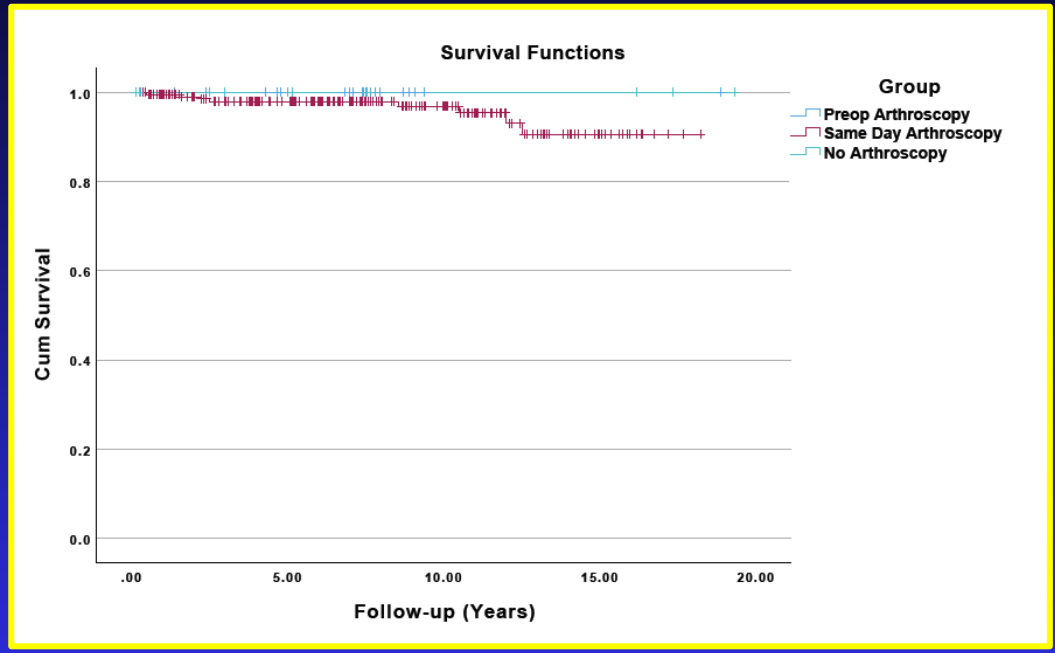


Results - Infection

- All-Cause Infection Rate - 0.78% (2/257)
  - No Deep Infections - 0%
  - No Superficial Infections In Preop & No-Arthroscopy Groups - 0%
  - 2 Superficial Infections in Same-Day Group - 0.88%
    - ✓ Cellulitis - N=1
      - Resolved w/ Keflex (500mg QID x 1 week)
    - ✓ Superficial Wound Infection - N=1
      - Resolved w/ Levaquin (500mg QD x 2 weeks)
- No Sig. Difference In Infections B/n Groups

Results - Failure

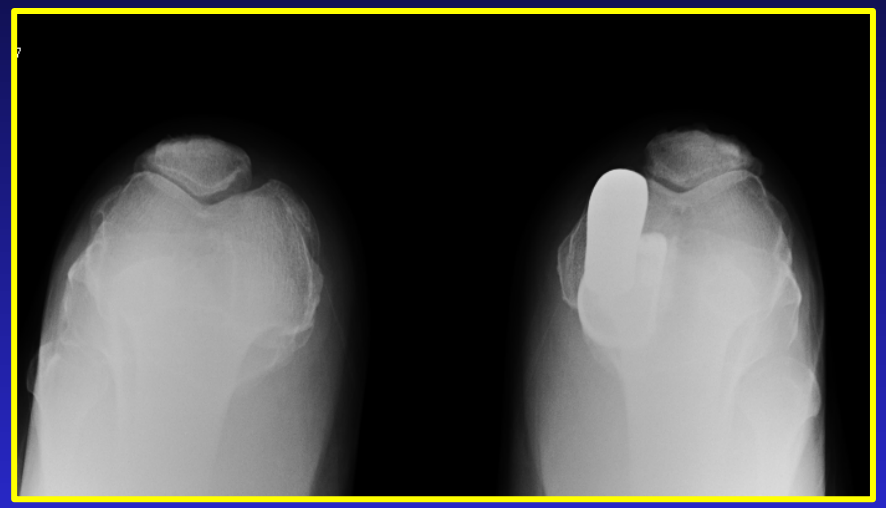
- 2-Year Early Failure Rate: 0.77% (2/257)
  - No Failures In Preop & No-Arthroscopy Groups
  - 2 Failures (0.88%) In Same-Day Group
    - ✓ Both Technical Errors - Overstuffed Lateral Compartments
      - Time To TKA: 6 Months
      - Time To TKA: 1.8 Years
        - 2 of First 10 Cases In Series
- Overall Failure Rate: 3.1% (8/257)
  - Preop- & No-Arthroscopy Groups
    - ✓ 100% At 5-, 10-, & 15-Years
  - Same-Day Arthroscopy Group
    - ✓ 98.0% At 5-Years
    - ✓ 96.9% At 10-Years
    - ✓ 90.6% At 15-Years
- No Significant Difference In Survivorship Across Groups
  - Log Rank (Mantel-Cox)
    - ✓ p=0.64

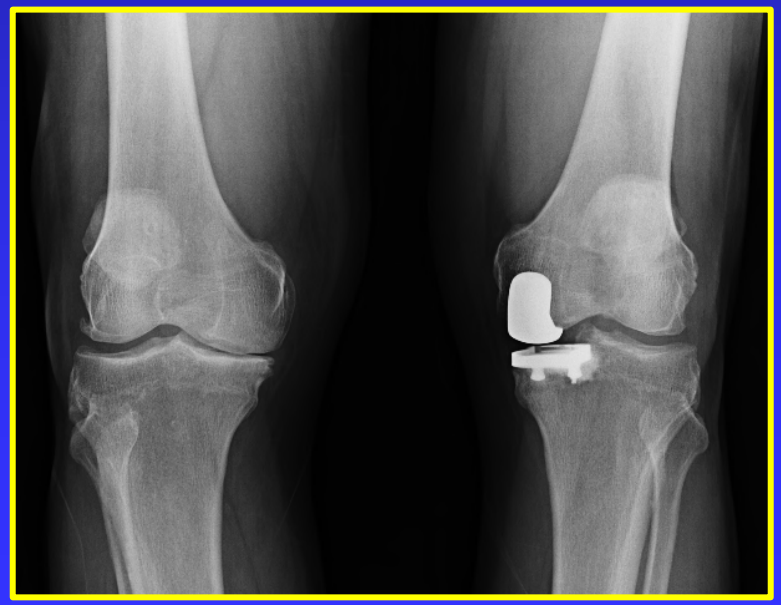


	Early Failure (<2 Years)	All-Cause Failure
Preoperative Arthroscopy	0.0% (0/22)	0.0% (0/22)
Same-Day Arthroscopy	0.88% (2/226)	3.5% (8/226)
No-Arthroscopy	0.0% (0/9)	0.0% (0/9)
Total	0.77% (2/257)	3.1% (8/257)

Conclusion

- Arthroscopy On The Same Day As UKA Does Not Increase Risk Of Infection Or Early Failure
  - Compared To Preop Arthroscopy & No-Arthroscopy Group
- Holistic Approach To Infection Risk
  - Preop Counseling On Risk Factors
    - ✓ Low Vitamin D, Poor Glycemic Control, Malnutrition, Tobacco Use, Mental Health[11,12]
  - Enforce Preoperative Protocols
    - ✓ Preoperative Screening *S. aureus*[13]
    - ✓ Intraoperative Antibiotics[14]
- Arthroscopy Safe To Perform w/ UKA
  - Address Concomitant Pathology In Contralateral Compartment Prior To UKA Without Increased Incidence Of Infection Or Failure





Thank You

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