

Utilization of Cementless TKA in Patients With Prior ACL Reconstruction Is Not Associated With Increased Complication Rates

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INTRODUCTION

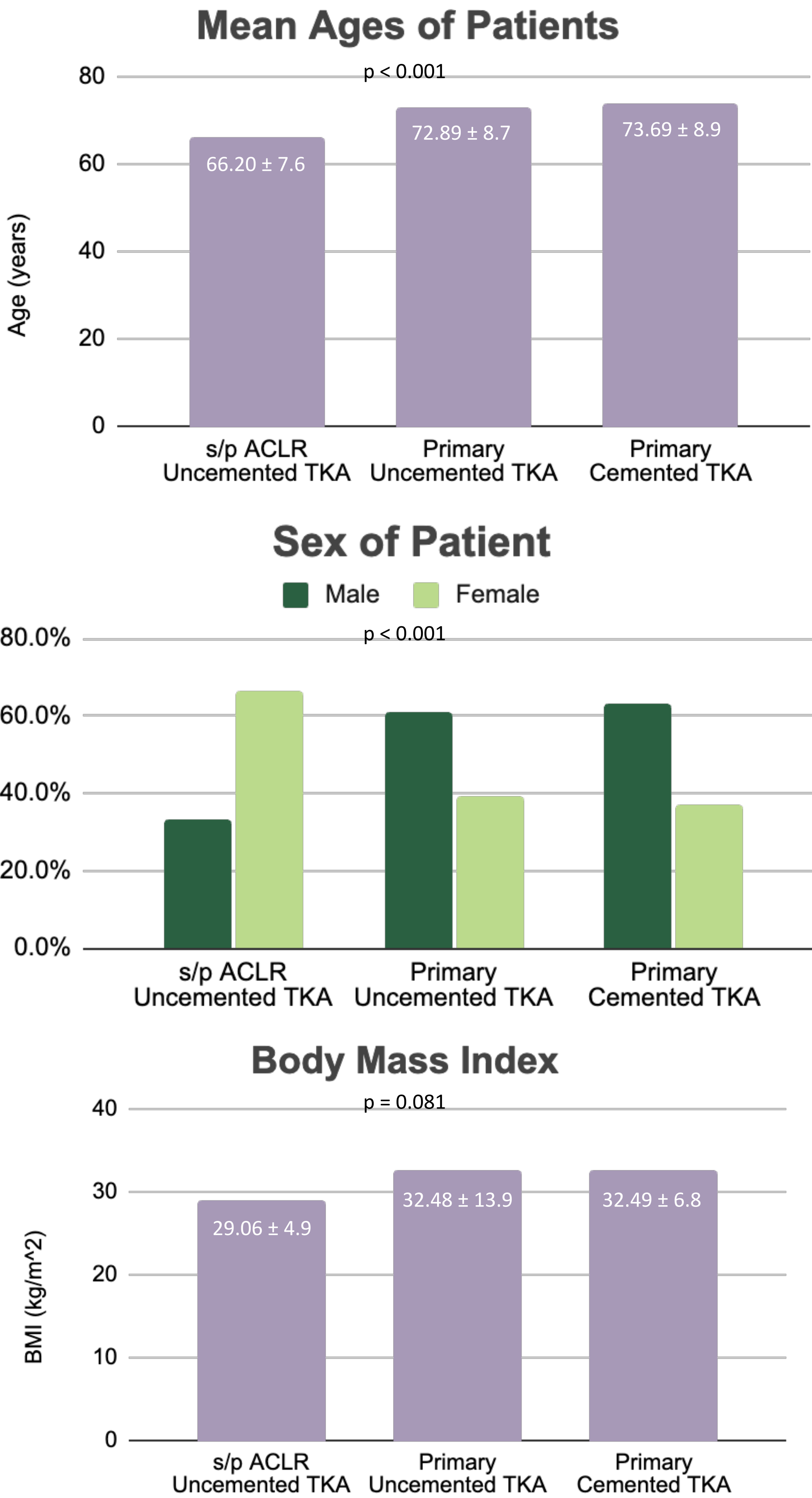
Total Knee Arthroplasty (TKA) is a widely accepted surgical intervention for managing advanced knee pathologies such as osteoarthritis, rheumatoid arthritis, and post-traumatic arthritis. Cemented fixation has long been the standard due to its predictable outcomes and immediate stability. However, cementless TKA is increasingly favored for its potential to achieve long-term biological fixation and reduce the risk of aseptic loosening.

An important consideration in TKA outcomes is a patient's history of anterior cruciate ligament (ACL) reconstruction. Prior ACL surgery may alter knee biomechanics, bone quality, and soft tissue integrity, potentially impacting implant longevity. With that, there is limited evidence comparing implant survival rates between cemented and cementless TKA in patients with and without prior ACL reconstruction (ACLR).

OBJECTIVE

To clarify whether fixation method and ACL history influence long-term implant outcomes, contributing valuable insights to surgical decision-making in TKA.

DEMOGRAPHICS



PRELIMINARY RESULTS

Postoperative Complications:

Complication or Adverse Events	s/p ACLR uncemented TKA, n= 69	Primary uncemented TKA, n= 5503	Primary cemented TKA, n= 1669	p-value
Instability	0.00% (0)	0.13% (7)	0.17% (3)	0.838
Stiffness	0.00% (0)	0.11% (6)	0.18% (3)	0.740
Extensor Mechanism Disruption	0.00% (0)	0.13% (7)	0.66% (11)	<0.001
Reoperation	0.00% (0)	0.22% (12)	0.59% (10)	0.042
Revision	1.45% (1)	2.48% (137)	2.69% (45)	0.759
Deep Periprosthetic Joint Infection	1.4% (1)	1.98% (109)	1.68% (28)	0.702
Periprosthetic Fracture	0.00% (0)	0.18% (10)	0.17% (3)	0.939
Patellofemoral Dislocation	0.00% (0)	0.15% (8)	0.12% (2)	0.925
Osteolysis	0.00% (0)	0.07% (4)	0.29% (5)	0.067
Implant Loosening	0.00% (0)	0.07% (4)	0.29% (5)	0.067

Reoperation rates and extensor mechanism disruption rates are higher in primary cemented TKA compared to uncemented, with no significant differences involving the ACLR group.

METHODS

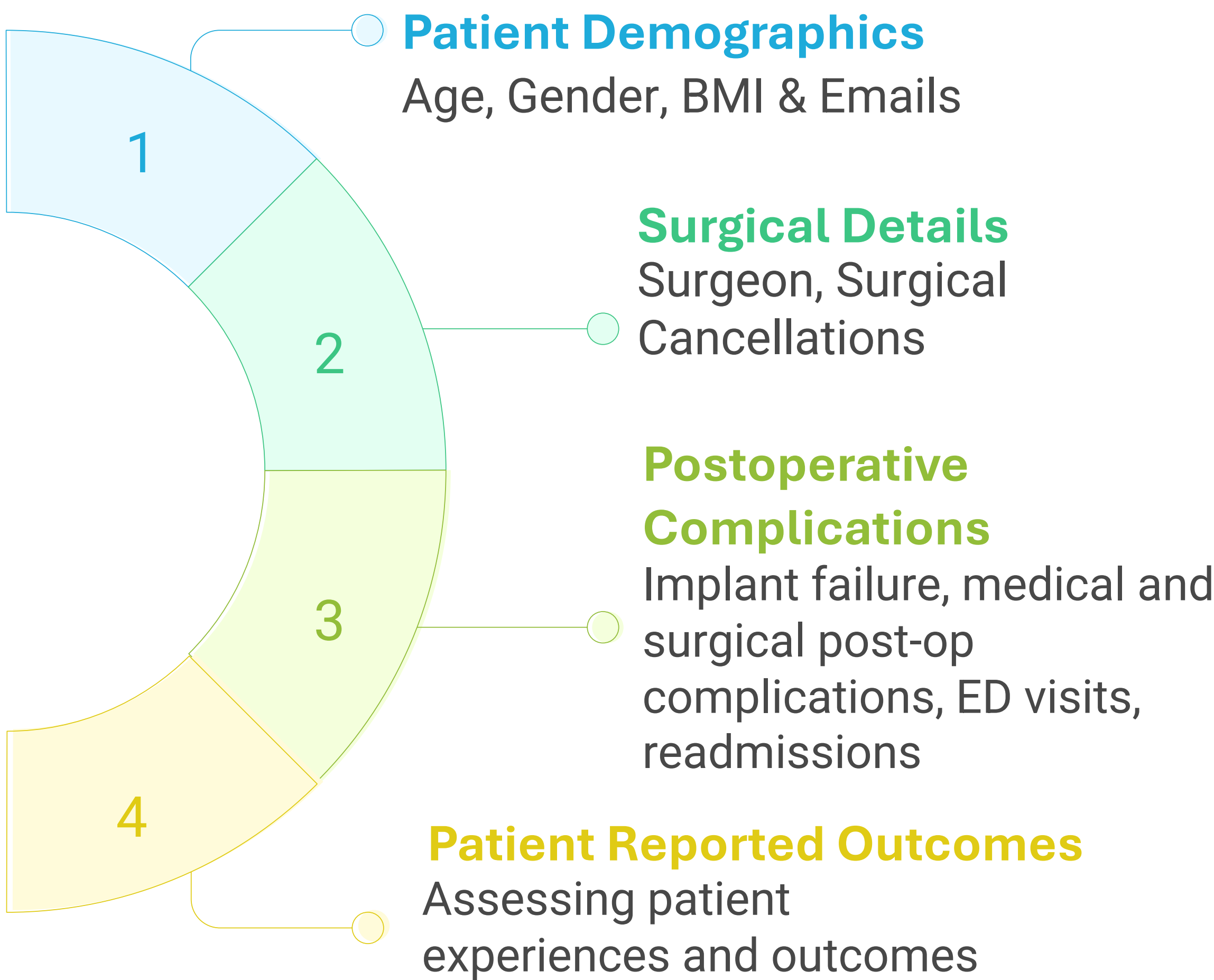
Retrospective Review
7241 patients s/p TKA between 3/1/2018 and 3/31/2023

Stratified into cohorts:

- s/p ACLR uncemented TKA
- Primary uncemented TKA
- Primary cemented TKA.

Examined (> 2 year follow up):

- Patient Demographics
- Surgical Details
- Postoperative complications
- Patient Reported Outcomes



CONCLUSIONS

These preliminary results show that patients with prior ACL reconstruction who underwent uncemented TKA had early complication rates comparable to primary TKA patients.

While analysis is ongoing, this study currently demonstrates a low rate of early (> 2 years) revision surgery following cemented TKA with prior ACLR, suggesting that cementless TKA is safe to utilize in this population.

REFERENCES & ACKNOWLEDGEMENTS



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