with rotating platforms as opposed to fixed-bearing designs. Kinematic follow-up studies showed significantly improved axial rotation with rotating-platform knees.

Aim: Reviews our institution's experience, as well as the latest clinical research on wear, kinematics, clinical outcomes, and survivorship of fixed-bearing and rotating-platform knees.

Methods: Randomized prospective study of 80 patients with at least 12 months follow-up. Participants underwent primary TKA, unilateral or bilateral.

Results: There were not statistically or clinically significant differences in clinical performance component alignment, revision rates, or adverse event rates except for tibial component alignment in the AP plane, which favoured TKA with fixed bearings.

Conclusions: Based on our findings, which agree substantially with those of prior systematic reviews of TKAs with mobile-bearing versus fixedbearing prostheses, there is no compelling case for either rotating-platform or fixed bearing implant design in terms of clinical performance, component alignment, adverse event frequencies, or survivorship. We therefore suggest that implant choice should be made based on other factors, perhaps including cost or surgeon experience.We Therefore Suggest That Implant Choice Should Be Made Based on Other Factors, Perhaps Including Cost or Surgeon Experience.

## JOURNAL OF CLINICAL ORTHOPAEDICS AND TRAUMA 57 (2024) 102573 DIAPHYSEAL TIBIAL GIANT CELL TUMOR MANAGED BY RESECTION AND LIQUID NITROGEN TREATED RE-IMPLANTATION

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Background: Giant cell tumours (GCTs) represent 5% of all bone tumours. Typical site of the tumour is epiphyseal, it can be metaphyseal in a skeletally immature patient. Literature is not clear on the diagnosis and treatment for the diaphyseal location.

Aims: The aim is to describe a diaphyseal GCT in a young patient and its novel treatment.

Methodology: We report a rare case of a 19-year-old female with a biopsyproven right tibia diaphyseal GCT. The lesion was lytic, expansile, centric with fuzzy zone of transition. The patient was initially managed by administering Denosumab weekly for four weeks. This was followed by excision of the tumour and re-implantation of the bone after liquid nitrogen treatment.

Results: The biopsy sent intra op re confirmed the diagnosis of GCT. The post operative period was uneventful. The knee range of movement was regained in 6 weeks. At 10 months follow up the reimplanted bone has incorporated and the patient is ambulating full weight bearing unaided. Conclusion: This case highlights the of possibility of atypical presentation

of GCT requiring individualised treatment. It also underscores the utility of cryosurgery in a new form for GCT

## JOURNAL OF CLINICAL ORTHOPAEDICS AND TRAUMA 57 (2024) 102574 COMPONENT SIZE DISCREPANCIES AND THEIR INFLUENCE ON THREE-YEAR OUTCOMES IN SIMULTANEOUS BILATERAL TOTAL KNEE ARTHROPLASTY: A MULTICENTRE PROSPECTIVE STUDY

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Introduction: Optimizing post-TKA joint kinematics and stability requires choosing appropriately sized femoral and tibial components.

Method: We prospectively evaluated the impact of component sizing on postoperative outcomes over three years in 166 patients undergoing simultaneous bilateral total knee arthroplasty (bTKA) grouped into: same-sized femoral components (Subset A, n=140) and different-sized components (Subset B, n=26). Baseline characteristics, and postoperative outcomes: Range of Motion (ROM), Knee Society Score (KSS), and patient-reported measures (WOMAC and SF-36), were assessed.

Results: Subset A: mean age-  $64.52\pm7.49$  years, with 86.43% females; Subset B: mean age of  $63.37\pm5.82$  years, with 88.46% females. All patients received metal-backed femoral components, tibial base plates, and all-poly tibial inserts. The most common femoral component size in subgroup A was C (38.46%), tibial component size was 2 (43.21%). Subset B: femoral components with one size difference in all 26 patients and variable tibial components: tibial base plate: 16 patients had identical size, 9 had 1 size difference, one had 2 sizes difference. All patients in both groups had 9 mm tibial inserts. Clinical and functional KSS scores at three-year follow-up: Subset A ( $86.56\pm14.25$  and  $96.25\pm6.19$ ), Subset B similar trend (p<0.001). Improved ROM (Subset A:  $123.62^{\circ}\pm3.09^{\circ}$ ; Subset B:  $118.13^{\circ}\pm9.64^{\circ}$ ), WOMAC pain ratings, and SF-36 (p<0.001) in both groups, with no size mismatch issues.

Discussion: One-size disparities in component selection do not limit simultaneous bTKA success.

Conclusion: Regardless of implant size, both cohorts showed gradual and significant improvement in ROM, KSS, and quality of life over 3-year follow-up duration.

## JOURNAL OF CLINICAL ORTHOPAEDICS AND TRAUMA 57 (2024) 102575 CORRELATION BETWEEN ANTHROPOMETRIC PARAMETERS AND ACTIVITY LEVEL OF PATIENTS AND THICKNESS OF QUADRUPLED HAMSTRING AUTO-GRAFT: A CORRELATIONAL STUDY

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Background: The graft size plays a vital role in the ACL reconstruction. Many studies have been done upon correlation between anthropometric factors with graft size in ACL reconstruction but the results are inconclusive. Our purpose was to correlate anthropometric factors like height, weight, BMI, thigh circumference and activity level with semitendinosus graft width.

Methods: It was a cross-sectional study. Fifty-five consecutive patients undergoing arthroscopic ACL reconstruction using ipsilateral semitendinosus graft were included. Baseline anthropometric characters and Tegner's score were recorded. Quadrupled semitendinosus Graft width was measured. Pearson's correlation test was used to establish any correlation among the variables. Linear regression model was used to estimate the impact of various parameters on graft width.

Results: Mean age, weight, height, BMI, thigh circumference and Tegner's score were 29.7 years (SD 8.9), 70.1 kg, 1.68 meters, 24.69 kg/m2, 46.2 cm and 4.9, respectively. Mean graft width was 8.3 mm. Weight and BMI had moderate positive correlation with graft length (r=0.42, r=0.4 respectively). No significant correlation was found between age, height, thigh circumference and Tegner activity score with harvested graft dimensions. Patients below 58kg of weight are at risk of having a graft thickness lesser than 8mm according to multiple stepwise linear regression.

Conclusion: Among all anthropometric parameters, weight and BMI have moderate correlation with graft thickness. Thin built patients should be counselled preoperatively regarding potential thinner graft size

## JOURNAL OF CLINICAL ORTHOPAEDICS AND TRAUMA 57 (2024) 102576 DOES PERONEUS LONGUS AUTOGRAFT HARVEST NEGATIVELY IMPACT FOOT FUNCTION IN THE SHORT TERM? A RETROSPECTIVE COHORT STUDY

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Background: The peroneus longus tendon (PLT) autograft is becoming an increasingly popular option for anterior and posterior cruciate ligament reconstruction. The objective of this study was to know whether there is any donor site morbidity or impairment in foot function after the harvest of PLT autograft in the short term.

Methods: The current study was a retrospective cohort study. In this study, we have included patients aged 18 to 45 years operated between January