

Comparing Clinical Outcomes Following Single and Double High Tibial Osteotomy

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Type	Service Evaluation
Specialty	orthopaedics
Trust	Guy's and St Thomas' NHS Foundation Trust
Year	2023
Added	25 Apr 2026

Background

High tibial osteotomy (HTO) is a joint-preserving procedure for younger patients with medial compartment knee osteoarthritis and varus malalignment. Both single (opening or closing wedge) and double (biplanar) HTO techniques are performed at GSTT, but a formal comparison of clinical and radiographic outcomes between these approaches in our patient cohort had not been undertaken. Comparing pre- and post-operative limb alignment radiographs with functional outcome scores allows assessment of the accuracy and clinical effectiveness of each technique.

Aims

To compare clinical and radiological outcomes of single versus double high tibial osteotomy in patients treated at GSTT between 2017 and 2023.

Objectives

1. Identify all patients who underwent tibial osteotomy under Mr Khakha between 2017 and 2023. 2. Measure pre- and post-operative mechanical axis on full leg length films. 3. Record standardised clinical outcome scores (KOOS, Oxford Knee Score) at follow-up appointments. 4. Compare correction accuracy, complication rates and patient-reported outcomes between single and double osteotomy techniques.

Guidelines

Published literature on HTO outcomes and radiographic measurement standards

Keywords

high tibial osteotomy, HTO, knee osteotomy, varus knee, medial compartment OA, limb alignment