

# **Intra-Articular Changes And Predictive Factors Following Medial Open Wedge High Tibial Osteotomy**

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High tibial osteotomy (HTO) is an established treatment in patients with unicompartmental knee arthritis combined with varus malalignment. In recent years, medial open-wedge HTO has been popularized with the development of firm fixators such as locking plates as well as simplified surgical techniques. Previous reports demonstrated regeneration of articular cartilage in the medial compartment after lateral closed-wedge HTO was affected by preoperative cartilage degeneration grade, postoperative limb alignment and differences between the medial femoral condyle (MFC) and medial tibia plateau (MTP). Recently, several reports have assessed cartilage regeneration after medial open-wedge HTO, but very little is known about which prognostic factors influence regeneration. In contrast, there has been paucity in the literature concerning patellofemoral joint in clinical setting. Only a few theoretical studies about acceleration of degenerative change resulted from increased patellofemoral contact pressure, alteration of Qangle and insall-salvati ratio. Moreover, no author has clearly reported the condition of patellofemoral joint following medial open-wedge HTO by arthroscopy. For these reasons, we performed 2-staged arthroscopic evaluation of medial compartment and patellofemoral joint during and after the medial open-wedge HTO using a locked plate system. This study document whether cartilage regeneration occurs in the previously degenerated medial compartment of arthritic knees after medial open-wedge HTO without concomitant cartilage procedures and assess which predictive factors could influence articular regeneration after HTO. Furthermore, changes of patellofemoral joint and predictive factors following medial open-wedge HTO was also assessed