The integrity to the medial collateral ligament (MCL) is crucial for the proper knee function and implant longevity in total knee arthroplasty (TKA). In Asia, TKA performed in those knees with moderate to severe fixed varus arthritis are common. However, most surgeons avoid performing a complete release of the MCL due to concern of later knee instability. In routine our practice for TKA in varus arthritic knee, we use less invasive-midvastus approach. With the knee in 60° flexion and visualization is adequate, medial osteophytes were removed from both the femoral and tibial sides. Exposure of the medial tibia toward the posteromedial corner was made subperiosteally using a small curved osteotome. The exposure toward the distal tibia was limited at 1 cm at mid medial plateau and 0.5 cm at the posterolateral tibial corner. Sequential bone cuts were made and the provisional gap balancing in flexion and extension was evaluated. The fine-tuning of gap balancing was again evaluated after trial components are in place. With the knee in full extension, knees which had tight medial gap and > 2 mm lateral gap were indicated for complete MCL release. The technique was as described by Insall et al\(^1\), including subperiosteal MCL release using a slim osteotome. The release was made from tibial attachment along the anteromedial part of the tibia cortex, without violation of pes anserinus insertion, until there is we feel no soft tissue resistance. In contrary, the MCL release was not indicated for those who had lateral gap of ≤ 2mm. No additional external knee splint was used at postoperative period in all patients. Early postoperative ambulation was started in the morning of the postoperative day 1, including voluntary upright sitting, knee straightening, feet dangling, and full-weight walking with a walker under the supervision of orthopedic fellows\(^2\). The discharge criteria included ability to flex the operated knee to 90° and to walk independently with walking aid. With this release technique, our 6- to 9-year follow-up in 35 patients is still satisfactory with intact for medial soft tissue tension.

References