Case Study:

Bilateral Unicondylar Knee Replacement in the Outpatient Surgery Center Setting

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Case Introduction

The patient is a 52-year-old male with pain of the bilateral medial femorotibial compartments. The patient exhibits varus instability and has no patellofemoral or lateral pain. The patient had prior arthroscopic procedures, two on the right and one on the left, for debridement of extensive medial meniscus tears. The patient was treated with conservative measures including multiple intraarticular cortisone injections, bracing, physical therapy, activity modification, and viscosupplementation.

Case Presentation

The patient presented with clinical radiographic findings confirming isolated medial compartment arthritis with varus instability bilaterally (Figure 1). After discussing options with the patient, he decided to have bilateral simultaneous medial unicompartmental knee replacements performed.

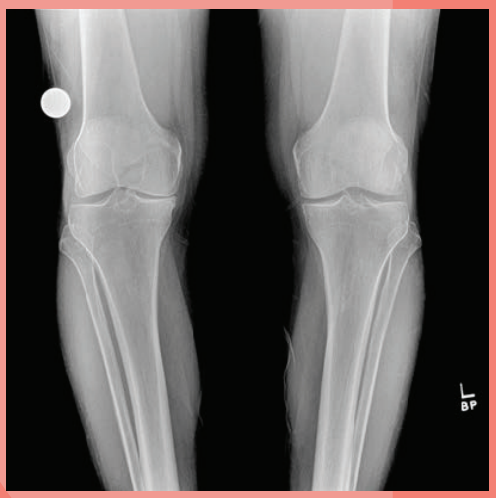

Figure 1

Pre-op Plan

Prior to the knee pain the patient was extremely active. Therefore he expressed his desire to get back to his family and his job as quickly as possible. He decided to do the knee surgery as an outpatient so he could get home and back on his feet as quickly as possible. UniAlign® was utilized to meet the patients overall desires, including a less invasive, computer-assisted technique that minimized tissue dissection and bone resection.

Operative Findings & Approach

Both sides of the surgical procedure took less than 30 minutes of midvastus tourniquet time. Aquamantis and Experal were utilized to create a short acting spinal and adductor canal block. There was minimal dissection required and thus minimal bleeding. There was no need for extra pins. Registration took under 30 seconds. The tibial guide was set for 6mm bone resection and 6 degrees of slope. The tibial cuts were accurate and precise, which assisted in the remainder of the procedure, where a 8mm poly size was inserted on both sides (Figure 1, Figure 2, Figure 3).

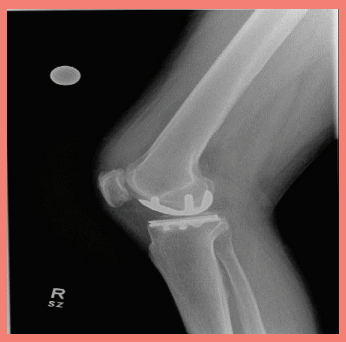

Figure 2

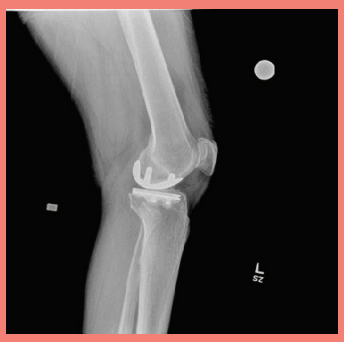

Figure 3

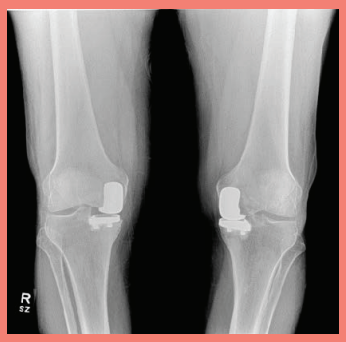

Figure 4

Follow Up

After the surgery the patient did very well and was ambulate with crutches within a few hours and then went home. Enteric coated aspirin was utilized for DVT prophylaxis, as he was extremely mobile the day of surgery. The patient then started outpatient physical therapy on postoperative day two. At the time of his two week follow up, he was off narcotics and was ambulating without a cane. He completed physical therapy and

recovered functional strength and range of motion within six weeks. He now has no pain, no limp and is back to an active lifestyle.

Clinical Benefits

UniAlign enhanced the efficiency of the procedure and improved the implant positioning. UniAlign is a great asset in the outpatient surgical setting because it is a hand held technology that is upgradable and unattached from any large unit that takes up space. In addition, there is no need for added costs for servicing and upgrades as well as no pre-operative imaging. No extra pin leads are needed, therefore morbidity is low, including reduced incidence of infection or fracture. Tissue dissection is also minimized, as the MIS instrumentation affords a less invasive muscle sparing approach decreasing risk of bleeding. Overall, the outcomes of UniAlign aided in better implant placement and improved long-term results.