PATHOLOGY
Unicompartmental bipolar disease

TREATMENT
Unispacer

SUBMITTED BY
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CHIEF COMPLAINT AND HISTORY OF PRESENT ILLNESS

This male patient is a 44-year-old, large-machine mechanic with progressive, left greater than right, medial-sided knee pain. The quality is sharp with twisting and turning activities and at other times deep, dull aching. The severity is intense and the timing is per weight-bearing activity, although he does have some aching at rest. The patient has unsuccessfully worn an unloader knee brace for the past 2 years. He reports a history of an open meniscectomy and arthroscopy of his right knee performed more than 20 years previously. He smokes 1 to 2 packs per day and has for the past 20 years.

PHYSICAL EXAMINATION

Height, 5 ft, 9in.; weight, 150lb; BMI (body mass index), 22.5. The patient ambulates with an antalgic gait. He stands in slight symmetric varus. Bilateral range of motion is from 5 to 130 degrees of flexion. He has a mild effusion on the right knee and moderate effusion on the left knee. He has bilateral focal medial joint line tenderness. There is no increased ligamentous laxity.

RADIOGRAPHIC EVALUATION

Anteroposterior and lateral radiographs demonstrate medial compartment joint space narrowing (Figure C10.1). The Merchant view shows a central patella with maintenance of joint space. The posteroanterior standing notch view shows significant joint space loss in the right medial compartment and moderate narrowing in the left medial compartment. The long-leg alignment view shows 4 to 5 degrees varus on the right and 3 to 4 degrees varus on the left.

SURGICAL INTERVENTION

The arthroscopy revealed minimal chondrosis except medially where both the femoral condyle and tibial plateau had extensive grade III and early IV chondrosis. The meniscus was relatively absent. The anterior cruciate ligament was intact. Following arthroscopic preparation of the joint surfaces, a unispacer was inserted through a miniarthrotomy (Figure C10.2). Postoperatively, the patient was immediately allowed weight bearing and range of motion as tolerated. Advance to unrestricted activities was permitted after 3 months.
Case 10

Figure C10.1. Preoperative anteroposterior (A) and lateral (B) radiographs show narrowing of medial joint space with slight varus deformity.

Figure C10.2. Intraoperative anteroposterior (A) and lateral (B) radiographs show proper placement of the unispace.