PROCEDURES: , Total knee replacement.,PROCEDURE DESCRIPTION:, The patient was bought to the operating room and placed in the supine position. After induction of anesthesia, a tourniquet was placed on the upper thigh. Sterile prepping and draping proceeded. The tourniquet was inflated to 300 mmHg. A midline incision was made, centered over the patella. Dissection was sharply carried down through the subcutaneous tissues. A median parapatellar arthrotomy was performed. The lateral patellar retinacular ligaments were released and the patella was retracted laterally. Proximal medial tibia was denuded, with mild release of medial soft tissues. The ACL and PCL were released. The medial and lateral menisci and suprapatellar fat pad were removed. These releases allowed for anterior subluxation of tibia. An extramedullary tibial cutting jig was pinned to the proximal tibia in the appropriate alignment and flush cut was made along tibial plateau, perpendicular to the axis of the tibia. Its alignment was checked with the rod and found to be adequate. The tibia was then allowed to relocate under the femur.,An intramedullary hole was drilled into the femur and a femoral rod attached to the anterior cutting block was inserted, and the block was pinned in appropriate position, judging correct rotation using a variety of techniques. An anterior rough cut was made. The distal cutting jig was placed atop this cut surface and pinned to the distal femur, and the rod was removed. The distal cut was performed.,A spacer block was placed, and adequate balance in extension was adjusted and confirmed, as was knee alignment. Femoral

sizing was performed with the sizer, and the appropriate size femoral 4-in-1 chamfer-cutting block was pinned in place and the cuts were made. The notch-cutting block was pinned to the cut surface, slightly laterally, and the notch cut was then made. The trial femoral component was impacted onto the distal femur and found to have an excellent fit. A trial tibial plate and polyethylene were inserted, and stability was judged and found to be adequate in all planes. Appropriate rotation of the tibial component was identified and marked. The trials were removed and the tibia was brought forward again. The tibial plate size was checked and the plate was pinned to plateau. A keel guide was placed and the keel was then made. The femoral intramedullary hole was plugged with bone from the tibia. The trial tibial component and poly placed; and, after placement of the femoral component, range of motion and stability were checked and found to be adequate in various ranges of flexion and extension.,The patella was held in a slightly everted position with knee in extension. Patellar width was checked with calipers. A free-hand cut of the patellar articular surface was performed and checked to ensure symmetry with the calipers. Sizing was then performed and 3 lug holes were drilled with the jig in place, taking care to medialize and superiorize the component as much as possible, given bony anatomy. Any excess lateral patellar bone was recessed. The trial patellar component was placed and found to have adequate tracking. The trials were removed; and as the cement was mixed, all cut surfaces were thoroughly washed and dried. The cement was applied to the

components and the cut surfaces with digital pressurization, and then the components were impacted. The excess cement was removed from the gutters and anterior and posterior parts of the knee. The knee was brought into full extension with the trial polyethylene and further axially pressurized as cement hardened. Once the cement had hardened, the tourniquet was deflated. The knee was dislocated again, and any excess cement was removed with an osteotome. Thorough irrigation and hemostasis were performed. The real polyethylene component was placed and pinned. Further vigorous power irrigation was performed, and adequate hemostasis was obtained and confirmed. The arthrotomy was closed using 0 Ethibond and Vicryl sutures. The subcutaneous tissues were closed after further irrigation with 2-0 Vicryl and Monocryl sutures. The skin was sealed with staples. Xeroform and a sterile dressing were applied followed by a cold-pack and Ace wrap. The patient was transferred to the recovery room in stable condition, having tolerated the procedure well.