



Use of Opteform in Acetabular Reconstruction and Osteolytic Defect Repair

Series A, Number 7

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Presentation

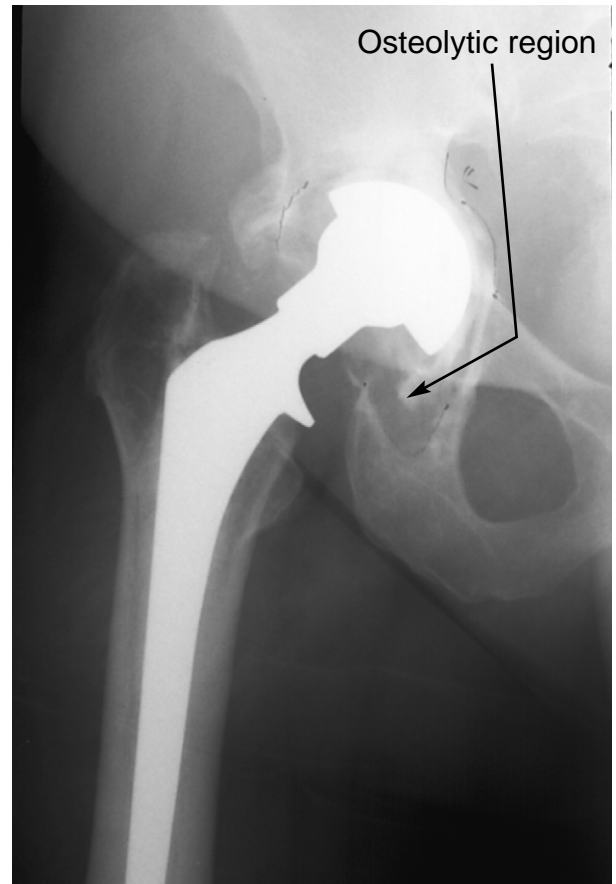
A 68 year-old female complaining of right hip pain was seen 15 years after primary total hip arthroplasty for osteoarthritis. Physical examination demonstrated significant pain and decreased range of motion of her right hip. Radiographs revealed significant polyethylene wear with medial and superior migration of the acetabular component as well as a large osteolytic defect in Zone III. The femoral component showed evidence of some calcar rounding in Zone VII, but generally appeared well fixed (Figure 1). The patient was scheduled for revision total hip arthroplasty.

Operation

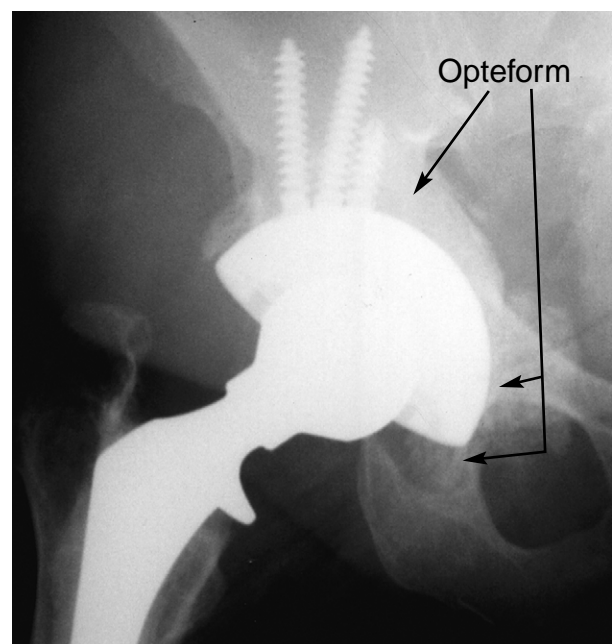
The patient underwent revision of the acetabular component through a posterolateral approach. Intraoperative cultures were negative. The femoral stem was felt to be stable and in good position and was retracted anteriorly. The acetabular component was mobile and easily removed with a Kocher clamp. A large fibrous membrane was debrided and, although the medial wall was intact, several large defects were noted. The acetabulum was sequentially reamed from 48mm to 58mm. A 58mm AcuMatch trial cup fit well despite a large contained superior defect and a large posterior segmental defect (which represented less than one-third of the cup circumference). Additional cavitory defects were noted in the medial wall, the ischium and pubis. One 75mm and one 90mm Opteform® disks were warmed and finger-packed into all cavitory defects. A hemispherical trial shell was then used to further impact the graft. A 58mm AcuMatch shell was inserted and three dome screws were utilized to enhance

Fig 1. Preoperative radiograph reveals loose acetabular component with cup migration and large osteolytic cyst in Zone III.

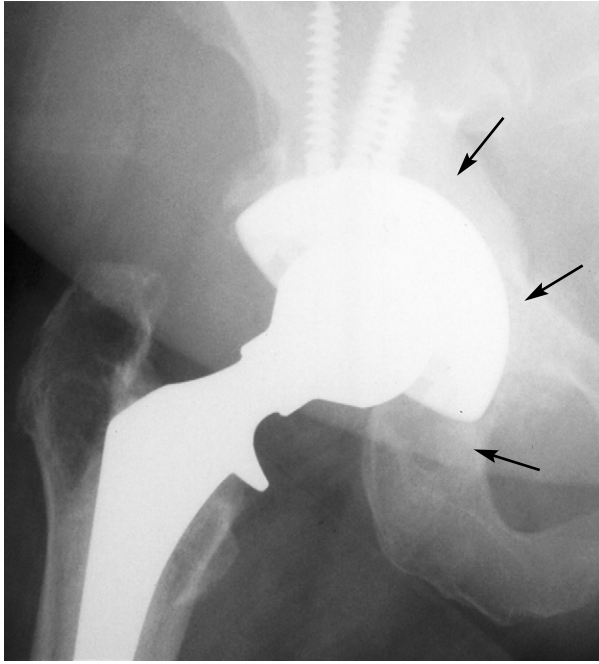
Fig 2. Two week follow-up: radiographs reveal large amount of Opteform® graft superiorly, in the ischium and pubis and along the medial wall. The graft material has a stippled appearance.



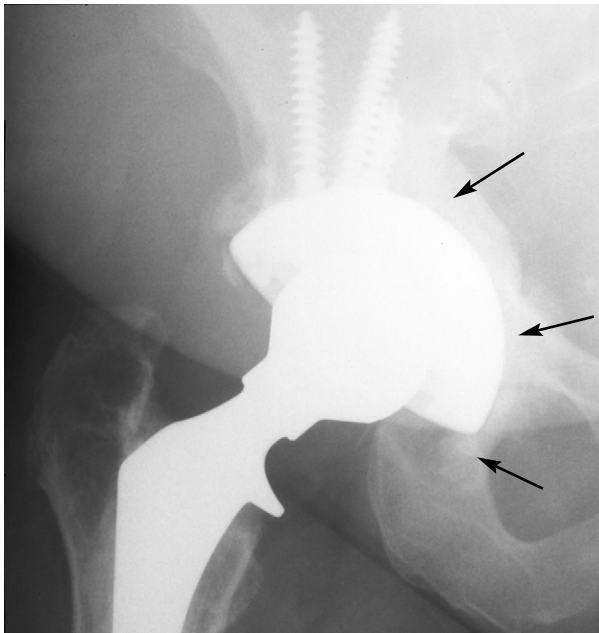
1)



2)



3)



4)

fixation. The three screws were anchored to the solid host bone. A new 32mm head was selected to avoid prosthetic impingement. The construct was stable, eliminating the need for femoral stem revision.

Results

Postoperative radiographs at the time of staple removal revealed a large amount of Opteform[®] graft material with a stippled appearance (Figure 2). The patient returned for an 8-week follow-up appointment ambulating with a cane and with only mild hip discomfort. Radiographs revealed a less stippled, more confluent appearance to the Opteform[®] graft material (Figure 3). At 6-month follow-up, the patient was doing very well with only some minor lateral hip discomfort and a HHS of 93.725 (improved from 58.375 preoperatively). Six month radiographs showed consolidation of the Opteform[®] graft and no evidence of graft resorption, cup migration or radiolucency (Figure 4).

Fig 3. Eight week follow-up: radiographs show more confluent appearance of graft although some stippling is apparent.

Fig 4. Six month follow-up: radiographs show a confluent, consolidated Opteform[®] graft with no evidence of cup migration or graft resorption.

*Opteform is processed by
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