

ID: 509

Title: Radiological Evaluation of the Hip Joint Following Endoprosthetic Replacement of the Proximal Femur

Abstract: Background

Endoprosthetic replacement of the proximal femur involves removal of large amounts of bone and surrounding soft-tissues and is associated with a considerable load on the remaining acetabulum. We radiologically evaluated the changes occurring around the affected hip joint.

Methods

Follow-up imaging studies of 41 consecutive patients who underwent either proximal or total femur endoprosthetic replacement and in which an acetabular cup has not been placed were retrospectively reviewed. The radiological evaluation included the extents of acetabular protrusion, degenerative changes of the acetabulum, and heterotopic bone formation around the prosthetic hip joint.

Results The mean follow-up period was 76.8 months (range 1 to 190 months). Protrusion of the prosthetic head was documented in 14.6% (6 patients), degenerative acetabular changes in 9.7% (4 patients), and grade 1 heterotrophic bone formation in 24.4% (10 patients). The degenerative articular changes and heterotopic bone formation were not associated with clinical symptoms

Conclusions

Radiological evidence of protrusion, degeneration, and heterotopic bone formation occur in the minority of the patients who undergo endoprosthetic replacement of their proximal femur. The extent of these changes and the lack of clinical symptoms do not justify the routine placement of an acetabular cup in these cases