

# Thompson's hip hemiarthroplasty for neck of femur fracture: remarkable clinical outcomes at 45-year follow-up

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## Learning points

- ▶ This report adds to the literature a new testimony of an old favourite with remarkable clinical outcomes at 45-year follow-up.
- ▶ Thompson's hip hemiarthroplasty remains an old favourite to many surgeons as it has been tried and tested over the years with ease of use and well-established clinical outcomes.
- ▶ Acetabular erosion from hemiarthroplasties can lead to pain and may require revision into total hip; however, its prevalence remains largely unknown.

## DESCRIPTION

We present very interesting X-ray images of a 96-year-old woman with previous neck of femur fracture treated with Thompson's hip hemiarthroplasty 45 years ago with excellent clinical outcomes, making it one of the longest reported follow-up in the literature. She had a recent fall and presented to emergency department with difficulty weight bearing. Her clinical examination revealed symmetrical passive hip range of movements with tenderness in the pubic region. Her medical history included hypertension and left hip neck of femur fracture 45 years ago. She lives alone, fully independent with activities and mobilises independently unaided. Anteroposterior pelvic radiographs (figures 1 and 2) demonstrate left superior and inferior pubic rami fractures with well-fixed left



**Figure 1** Anteroposterior pelvis radiograph with left hip Thompson's hemiarthroplasty and left pubic rami fractures.



**Figure 2** Plain radiograph of the distal tip of the prosthesis.

hip Thompson's hemiarthroplasty in situ with mild acetabular erosion and no evidence of loosening. She was treated conservatively with analgesia and physiotherapy and discharged into rehabilitation placement uneventfully.

Her retrospective (preinjury) Western Ontario McMaster Universities Osteoarthritis Index Score was 81.5 (maximum 100, higher score better function), Oxford Hip Score was 36 (maximum 48, higher score better function) and Harris Hip Score was 79.8 (maximum 100, higher score better function). These scores validate somewhat that she



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managed to maintain reasonable hip function and mobility into her 10th decade and the implant's 5th decade.

One of the main limitations of hemiarthroplasties is erosion of acetabular cartilage by the prosthesis.<sup>1</sup> When erosion develops, it is likely to be accompanied by radiological signs of acetabular erosion and medial migration of the prosthesis with pain in the groin. Conversion to total hip replacement may then be necessary in active patients. However, the true prevalence, severity and clinical importance of acetabular erosion secondary to hemiarthroplasty of the hip are largely unknown.<sup>2,3</sup>

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