

Revision total hip replacement

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Revision of a THR is required if the patient is symptomatic secondary to failure of the implant by loosening (Figure 39.11), recurrent dislocations or a periprosthetic fracture. Rarely the femoral prosthesis itself can fracture, leading to pain and disability requiring revision surgery . Loosening of the implant can occur as a result of an infection or aseptic loosening. Aseptic osteolysis is caused by an inflammatory response secondary to particle wear, which can be from either poly - ethylene or metal. In the initial stages of loosening the patient complains of pain, which is experienced mainly on weight-bearing. - Thorough assessment to rule out infection is essential to plan infection (can also be reported as further treatment. A history of problems with wound healing) in the immediate postoperative period may suggest infection as a cause of premature implant Staphylococcus loosening. The infection can be low grade, with - - -

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Figure 39.11 Significant acetabular wear, eccentric position of the femoral head (arrow indicating left side wear) and osteolysis behind the acetabular component. Right hip wear is also seen (thin arrow). Distance X should be equal to distance Y . Here, distance X is considerably smaller than distance Y , indicating eccentric wear of the polyethylene (thin arrow).

and therefore normal measures of infection such as a raised C-reactive protein (CRP) may be equivocal (see Chapter 43 The Musculoskeletal Infection Society (MSIS) has defined several criteria (major and minor) to help with the diagnosis of prosthetic joint infection. The diagnosis of infection is aided by an elevated CRP and erythrocyte sedimentation rate; a joint aspirate or biopsy is also useful to identify a pathogen. In addition, a labelled white cell scan and single photon emission CT (SPECT) can provide additional information. Revision THR can be a single-stage or a two-stage procedure depending on the indication. If the loosening is secondary to infection, a two-stage revision is usually preferred. The first stage consists of implant removal, thorough debridement and implantation of an antibiotic-loaded cement spacer. Multiple deep specimens are sent for bacteriology to determine the organism and its antimicrobial sensitivity . The patient is subsequently prescribed an appropriate antibiotic regime (see Chapter 43). At the second stage of the procedure, the cement spacer is removed and a new prosthesis implanted. In the case of aseptic loosening, revision is performed as a single-stage procedure. If there has been a significant amount of bone loss, bone grafting or trabecular metal augments may be required. The results following a revision hip replacement are not as good as those following a primary THR and the rate of complications, especially dislocation, is also higher. Specialised acetabular components such as dual-mobility implants are favoured in a revision setting, especially for recurrent dislocation in those with poor muscle function. Ben-Shlomo Y , Blom A, Boulton C et al . The National Joint

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