EDITORIAL

Should follow-up of patients with arthroplasties be carried out by general practitioners?

Due to economic constraints, it has been suggested that joint replacement patients can be followed up in primary care. There are clinical, ethical and academic reasons why we must ensure that our joint replacements are appropriately clinically and radiologically followed up to minimise complications. This Editorial discusses this.

Earlier this year the Department of Health published a document entitled ‘Keeping it personal’,¹ which suggested that a patient’s general practitioner should perform the six-week post-operative appointment after any surgical procedure, instead of the surgeon. It stated that “GPs have the skills necessary to decide whether a patient needs to return to a consultant”. In the case of joint arthroplasty this is a potentially dangerous and costly strategy.

The guidelines for follow-up after total knee (TKR) and total hip replacement (THR) from the British Orthopaedic Association (BOA)²,³ state that “for best practice, patients should be followed up clinically and radiologically in the long term”.³ For TKR these guidelines state that the “minimum requirement is an AP and Lateral Xray at five years, and each five years thereafter”.² Following THR they recommend that a patient should be reviewed by the surgeon within eight weeks of the operation. They state that the “minimum requirements include taking a history of any complaints, clinical examination and antero-posterior (AP) and lateral X-rays at one, five, and each subsequent five years after operation”.³ In a recent review of 22 066 primary THRs with a maximum follow-up of 38 years, Wroblewski et al⁴ concluded that “regular follow-up after hip replacement is essential”. The long-term follow-up of patients with an arthroplasty should be performed by an orthopaedic surgeon and not by a general practitioner. We believe that this minimises morbidity for the patient and is more cost-effective for the health-care provider.

Infection at the site of operation is a major risk in orthopaedic surgery, and may not present during the in-patient stay. Surgical teams have greater experience and skill than primary care practitioners in recognising the early symptoms and signs of superficial infection; they are also better equipped to manage the early treatment. If a superficial infection is diagnosed early it may be eradicated with antibiotics or early aggressive debridement. Teaching primary care teams how to diagnose early surgical site infections would be time-consuming and may not even be feasible. In many cases, the opportunity for early intervention will be lost; if left untreated, infection can spread to the deep tissues, with much graver consequences. The earlier an infection is diagnosed, the greater the likelihood that less-invasive forms of treatment for eradication will be successful. This not only creates less morbidity for the patient, it is also less expensive for the health-care provider.

The regular follow-up of patients after arthroplasty allows orthopaedic surgeons to diagnose silent failure which might otherwise be missed, such as aseptic loosening which is a common cause of failure and initially causes no symptoms. Radiological evidence of aseptic loosening may precede symptoms by months or years.⁵ Regular follow-up with serial radiographs allows identification of silent aseptic loosening, so that revision can be performed before the patient experiences pain and before massive bone destruction occurs. Early intervention also prevents peri-prosthetic fractures, allows better pre-operative planning, and gives the greatest choice of prosthetic implants. Revision following a peri-prosthetic fracture has a higher mortality rate than planned revision surgery. Greater bone loss before revision leads to a poorer outcome and more expensive and complex salvage procedures. The BOA recommends that “part of the contractual agreement with purchasers/commissioners is to require follow-up to identify premature failure”.³
Another common cause of silent failure is osteolysis because of polyethylene wear. There has recently been a trend to use larger femoral heads in THR to reduce the risk of instability. This leads to an increased risk of wear and subsequent osteolysis. Regular radiological follow-up of these patients is essential to identify osteolysis during the silent stage before catastrophic bone loss occurs. A cost-effective analysis of early surgical intervention in silent osteolysis has been shown to be beneficial.

Long-term follow-up by surgeons is also imperative for research purposes. New implants are constantly entering the market and often receive a CE marking before their medium- to long-term performance is known. The Medical Devices Agency recommends that post-market surveillance should be “performed on a representative subset of the total number of implants used”. However, with no long-term data available, the only way for surgeons to assess the performance of newer prostheses is to review each patient themselves.

Audit is an integral part of modern surgical practice to monitor infection, failure, and other complications of surgery. For THR, the BOA has stated that “resources must be made available for prolonged follow-up, and data from each trust should be available and obtainable in a common format for regional and national audits”. This allows the identification of outliers so that good practice can be recognised and propagated and poor performers given remedial assistance. Consultants will also need to produce their audit figures for personal revalidation.

Long-term follow-up in appropriate centres ensures that patients are fully informed when giving consent. Outcomes vary between units, so to provide patients with accurate information regarding the benefits and risks of common arthroplasty procedures, local long-term data are required.

We recognise that it may be less expensive for patients to be followed up by a general practitioner in the short term. However, silent failure and other problems will be missed, leading to massive peri-prosthetic bone loss. Any short-term savings are likely to be offset in the long term by the higher cost of complex revision surgery. Some centres follow-up arthroplasty patients with questionnaires and radiographs assessed by those who are not orthopaedic surgeons, such as physiotherapists, radiologists and specialist nurses. This is no better than follow-up in primary care. Patients with arthroplasties should receive the best possible care, which can only be delivered by a specialist orthopaedic team and dedicated multidisciplinary staff, including senior surgeons. This ensures that any complication is diagnosed at the earliest opportunity, which minimises morbidity for the patient and cost for the health-care provider.

These patients must remain under review, where they can be seen by a specialist team with access to imaging and senior surgical support who have the expertise and courage to intervene at an early stage to avoid later morbidity.

References