ORTHOPAEDICS WA

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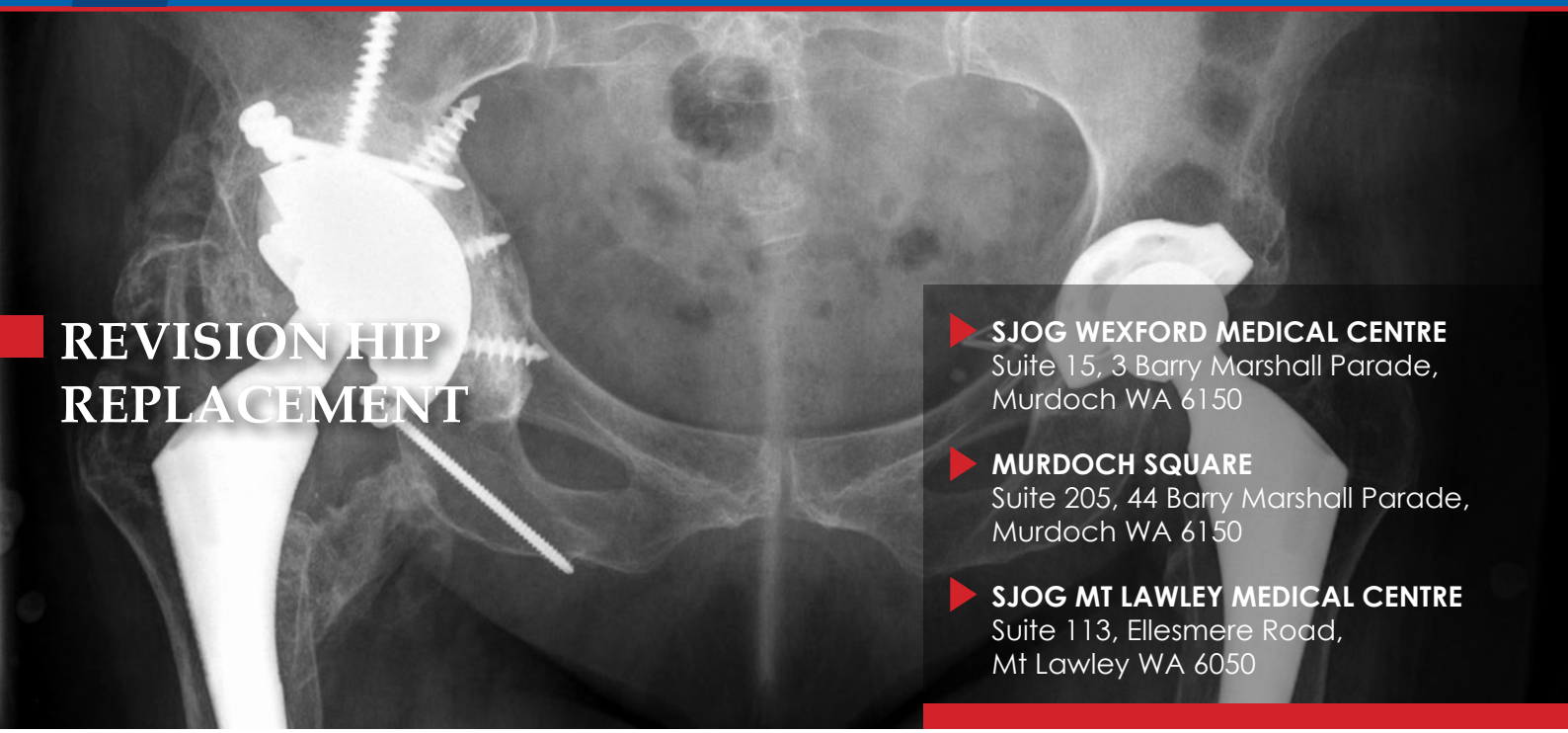

REVISION HIP REPLACEMENT

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BACKGROUND

Revision surgery of the hip (redo surgery) is complex, has more potential complications, larger wounds, and requires specialist equipment and facilities. The assessment and surgery for these conditions can be extremely demanding and should be performed by surgeons specifically trained to do this work. There is no absolute limit to the number of times a hip can be revised, but what may limit us is extreme tissue loss, persistent infection, or poor health of the patient. Patient recovery often takes longer and may require expert rehabilitation.

CAUSES OF REVISION

LOOSENING AND WEAR

The majority of hip replacements that fail, do so due to wear of the moving parts (bearings), which may be associated with bone loss and loosening of the components. These will usually become painful but may result in fractures of the bone or dislocation of the joint.

INFECTION

This occurs in about 1% of all primary hip replacements. It can present with pain, swelling, drainage of the wound, or may present many years down the line with loosening of the implants. Occasionally infection can come from a distant site such as teeth, chest infection, or urinary infection. Patients can become very unwell, requiring emergency surgery.

Successful treatment usually requires eradication of the infection. This means an initial operation to remove the infected implants, followed by a period of powerful antibiotic treatment, usually with a temporary hip in place. If the infection is successfully cleared, then a second operation may be carried out to implant a new hip replacement.

The treatment of infected joints is complex and requires expert management from both the surgeon and the infectious diseases physicians. In our hands, the chance of successful eradication of infection is more than 85%.

DISLOCATION

This occurs when the ball of the hip comes out of the socket. It is very painful and the patient will come with a short and twisted leg. The cause of this problem can be due to implant factors or patient factors. Implant factors include component malpositioning or wear. Patient factors include falls, twisting and poor muscle strength. Careful assessment of the cause of the dislocation needs to take place before revision surgery is contemplated, otherwise recurrence of the problem is all too common.

FRACTURE

Fractures around joint replacements are the fastest growing cause of revision in Australia. It most commonly occurs in elderly patients with osteoporosis (fragile bones) or after a minor fall. Again, surgery can be difficult, and complications have traditionally been very high.

Surgeons familiar with both trauma and joint replacement are the best to deal with these, as they require both skill sets. Some patients will need full revision of the implants, and others can just have the fractures fixed.

LEG LENGTH INEQUALITY

A true leg length difference of more than 1cm may be associated with significant pain and disability. This may be amenable to revision surgery, but this is often associated with some residual pain.

METALOSIS

Metal debris in the hip joint can be caused by problems with the bearings, of junctions between the components. Particular implants have high rates of problems with this issue. Revision surgery is complex, because of potential widespread muscle and bone damage. Infection and dislocation rates are high.

COMPLICATIONS OF REVISION SURGERY

These are essentially the same as for a primary hip replacement, but are more common.

- **INFECTION 1–5%**
- **BLEEDING**
  Transfusion is much more likely depending on the complexity of the surgery, but we have got rates down to under 10%.
- **BLOOD CLOTS IN THE LEG OR LUNG - 1% (CLINICALLY SIGNIFICANT)**
- **DISLOCATION 1–5%**
  Revision hips are much more unstable due to repeated soft tissue injury and muscle damage. We now have better ways of dealing with this, and the risk has reduced dramatically over the last 5 years.
- **ANAESTHETIC COMPLICATIONS -RARE**
  Depends on the extent of the surgery and the health of the patient.
- **DEATH 1–2% (IN THE FIRST YEAR)**
  Risk to life is much higher with this kind of surgery than with primary joint.
- **LEG LENGTH DISCREPANCY**
  In revision surgery, our ability to equalise the leg lengths is much more limited due to the reduced stability of the joint, and pre-existing deficiencies and deformity.
- **LOOSENING AND WEAR**
  These implants wear at least as fast as primary implants, and loosening is more common. Hence each revision is likely to last a shorter time than the implant that preceded it.
- **FRACTURE OF THE ACETABULUM (SOCKET) OR FEMUR (THIGH BONE) <10%**
  Fractures are much more common, usually during removal of the old implants. Experienced revision surgeons should be able to anticipate and deal with the majority of these.
- **BLOOD VESSEL INJURIES <1 IN 1000**
- **NERVE INJURIES <1 IN 1000**
- **HETEROTOPIC OSSIFICATION (HO) - BONE FORMATION IN THE SOFT TISSUES**
- **IMPLANT BREAKAGE**
  This is much more common in revision, but rarely requires additional surgery.

SURGERY AND RECOVERY

Most operations are carried out under a spinal anaesthetic, which is very safe, and minimizes complications such as nausea, vomiting, blood loss and thrombosis. We would normally mobilise our patients within a few hours of surgery. You may be required to use walking aids for several weeks. Hospital stay depends on the complexity of the surgery, but is still likely to be 5 days or less. Wound healing can be slower. Driving is not advised for 4-6 weeks (discuss with your surgeon). Precautions with activity and movements will be taught by the physiotherapists before your leave hospital.