Technical Section

TECHNICAL NOTES & TIPS

TECHNICAL NOTES

Hip arthrodesis in the paediatric and young adult patients: the use of hip resurfacing reamers

RUSSELL HAWKINS, AMIRSHAHRIAR ARIAMANESH
The Royal National Orthopaedic Hospital, Stanmore, UK

CORRESPONDENCE TO

Russell Hawkins, The Royal National Orthopaedic Hospital,
Stanmore, Middlesex HA7 4LP, UK
E: russhawkins73@googlemail.com

BACKGROUND

Hip arthrodesis is a good option in young active patients in whom the risks of failure of alternative treatments such as total hip replacement (THR) are high or where other bone-conserving techniques are not indicated.¹ The success of fusion and later conversion to THR depends upon accurate hip positioning, conservation of bone and preservation of abductor function. A simple, unique method of achieving these factors is described.

TECHNIQUE

The patient is positioned supine on a radiolucent table with both hips prepared and the perineum shut off. An abductor-sparing anterior approach is then performed. The acetabulum is prepared

with sequential powered hemispherical hip resurfacing reamers to reach bleeding subchondral bone. The femoral head is prepared using the reciprocal resurfacing reamer of an appropriate size to facilitate congruent reduction of the joint. The hip is then easily placed in the desired position prior to intra-articular fixation using a pin and plate system via a lateral approach to the proximal femur (Fig. 1).

DISCUSSION

The difficulties of arthrodesis are: achieving the desired position, non-union, pain and a high complication rate following conversion to THR. Accurate positioning minimises adjacent pain and the requirement for THR. The reciprocal geometry of the hip created by the resurfacing reamers allows ease of positioning which is confirmed by Thomas' test and fluoroscopy in this supine exposure. The reamers also create a large contact area of subchondral bone promoting fusion while preserving the proximal femoral anatomy and abductor muscles. Primary and revision arthroplasty is technically easier due to bone conservation.

Reference

1. Beaulé PE, Matta JM, Mast JW. Hip arthrodesis: current indications and techniques. *J Am Acad Orthop Surg* 2002; **10**: 249–58.

Arthroscopic debridement of docking site in Ilizarov bone transport

PM ROBINSON, M PAPANNA, F YOUNIS, SA KHAN
Limb Reconstruction Unit, Department of Orthopaedics,
Salford Royal Hospital NHS Foundation Trust, Salford, UK

CORRESPONDENCE TO

Paul Robinson, Limb Reconstruction Unit, Department of
Orthopaedics, Salford Royal Hospital NHS Foundation Trust,
Stott Lane, Salford M6 8HD, UK
E: paulrobinson230979@yahoo.co.uk

BACKGROUND

Ilizarov bone transport is well established in the management of osteomyelitis, non-union and bone defects. A common complication of bone transport is docking site non-union. This often requires further procedures to aid docking,^{1,2} ranging from freshening of the bone ends with a curette and osteotome to bone grafting.^{3–5} Open procedures may be technically difficult due to

Figure 1 An arthrodesed hip prepared using hip resurfacing reamers.