Technical Section

TECHNICAL NOTES & TIPS

TECHNICAL NOTES

Using the Explant Acetabular Cup Removal System for removing a well-fixed resurfacing cementless acetabular component

MA BHUTTA, A GAMBHIR

Department of Trauma and Orthopaedics, Wrightington, Wigan and Leigh Healthcare Trust, UK

CORRESPONDENCE TO

MA Bhutta, 13 Cringle Drive, Cheadle SK8 1JH, UK
E: aqeelbhutta@hotmail.com

BACKGROUND

Revision surgery for hip arthroplasty may be required in conditions of infection, malposition and/or instability. A proportion of these arthroplasties, including hip resurfacing designs are cementless. These can be difficult to revise and are associated with increased bone loss. The Explant Acetabular Cup Removal System (Zimmer; Warsaw, IN, USA) has made the removal of cementless acetabular components much easier. The system utilises the inner acetabular liner to centralise the device whilst cutting uniformly at the bone-implant interface around the cementless shell.¹ Resurfacing acetabular components are a single monoblock with no inner liner. The Explant design, in its current form, does not lend itself to removal of the resurfacing shell. We describe a simple and cheap modification allowing the expeditious removal of the resurfacing shell.

TECHNIQUE

Unravel a small swab creating a square which is then rolled in from a corner apex. This is then soaked in saline to act as lubrication. On a flat surface, the rolled swab is held at one end and wrapped around that point spirally (Fig. 1). This is then laid within the acetabular component and provides adequate stability for the largest head size within Explant to function normally.

DISCUSSION

This technique allows the Explant to have adequate centralisation so that the angle of the cutting blade to the acetabular component is acute enough to prevent it catching and function as designed. This is cost-effective and simple.

Figure 1 Swab rolled from apex and laid spirally after being soaked. It is then placed in the acetabulum to centralise the Explant device.

Reference

1. Mitchell PA, Masri BA, Garbuz DS, Greidanus NV, Wilson D, Duncan CP. Removal of well-fixed, cementless, acetabular components in revision hip arthroplasty. *J Bone Joint Surg Br* 2003; **85**: 949–52.

Use of portable ultrasound for exploration and removal of superficial foreign bodies

MIKE JR KENT, JOEL TK MELTON

Department of Trauma and Orthopaedics, Poole General Hospital, Dorset, UK

CORRESPONDENCE TO

Mike JR Kent, Department of Trauma and Orthopaedics, Poole General Hospital, Dorset, UK
E: mikekent_100@hotmail.com

BACKGROUND

Exploration of wounds and removal of small penetrating subcutaneous foreign bodies is often technically difficult and time-consuming. The use of fluoroscopy in theatre can be time-consuming, requires a radiographer and results in radiation exposure for both patient and surgeon. The use of ultrasound as a diagnostic tool has been shown to be sensitive and specific in identifying foreign bodies.¹

TECHNIQUE

In our hospital, we have been using a Sonosite 180 Plus (Sonosite Inc., 21919 30th Drive, Bothell, WA, USA) portable

Figure 1 Image of subcutaneous fragment of glass.

ultrasound unit to identify and locate foreign bodies prior to exploration either in the emergency department or in theatre. Using the probe, the exact depth and location of the foreign body (including proximity to surrounding structures) is calculated. Prior to exploration, the skin is marked. The ultrasound probe can also be used intra-operatively in conjunction with a sterile latex cover to identify and locate residual fragments.

DISCUSSION

We have found that this method is easy to learn and quick to perform. It uses equipment readily available in emergency and operating departments and does not require extra staff. It negates the need to expose the patient and the operator to radiation. Its use in the emergency department in combination with local anaesthesia can prevent unnecessary operation. Using the probe intra-operatively can help prevent unnecessarily extensive tissue dissection.

Reference

- 1 Schlager D, Sanders AB, Wiggins D, Boren W. Ultrasound for the detection of foreign bodies. *Ann Emerg Med* 1991; **20**: 189–91.

Trapeziectomy with a capsular interposition flap

JAGDEEP K RAI
Sandwell General Hospital, West Bromwich, UK

CORRESPONDENCE TO

Jagdeep K. Rai, 94 Beaufort Road, Stenson Fields, Derby DE24 3AZ, UK. E: jkrai@hotmail.com

BACKGROUND

Osteoarthritis of the first carpo-metacarpal joint is a common cause of hand and wrist pain. Indications for trapeziectomy are worsening pain and joint instability. The gap between the first metacarpal base and the scaphoid can be filled with artificial

Figure 1 Square-shaped dorsoradial capsular flap is marked.

Figure 2 Tip of the capsular flap is sutured to flexor carpi radialis tendon at base of the cavity.

Figure 3 Final position of the capsular interposition flap. The base of the flap is sutured to adjacent capsule.

implants or with autologous soft tissue.^{1–3} After bone excision there is an excess of dorsoradial capsule. A method of performing a trapeziectomy incorporating a capsular interposition flap is described.

TECHNIQUE

After exposure of the dorsal joint capsule, a square, distally based flap of capsule is elevated, exposing the trapezium (Fig. 1). The