Technical Section [TECHNICAL NOTES AND TIPS

The challenging narrow proximal femur: a technical tip for use with the Exeter stem

PN Unnikrishnan¹, DS Bhachu¹, RS Ahluwalia²

¹Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust, Oswestry, UK

²King's College Hospital NHS Foundation Trust London, London, UK

CORRESPONDENCE TO

Nithin Unnikrishnan, E: n.unnikrishnan@nhs.net

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BACKGROUND

With an increasingly ageing population, neck of femur fractures are on the rise. In the elderly population, surgical management of intracapsular hip fractures is by hemiarthroplasty or total hip replacement (THR). Given that these patients are usually operated on a routine trauma list, every surgeon must be able to prepare a femur safely yet adequately.

The Exeter™ (Stryker, Warsaw [IN], USA) V40™ cemented stem is a commonly used femoral component which can be employed for a hemiarthroplasty or THR. The standard implant equipment sets have a vast array of femoral broaches and are available in most hospitals in the United Kingdom.

We describe a simple technique to facilitate the widening of a narrow proximal femur to create adequate room and to accept the appropriate hemiarthroplasty or THR cemented Exeter stem.

TECHNIQUE

We believe that many surgeons are not aware that the 44mm No. 0 broach is narrower in both the anteroposterior and mediolateral planes in comparison to the 37.5mm No. 0 broach. This applies from the tip of the broach to the metaphyseal flare (Fig 1).

For a patient with a narrow femoral canal, we suggest using the 44mm offset No. 0 broach directly after the 35.5mm CDH broach,

Figure 1 The narrower 44mm No. 0 broach is placed in front of the 37.5mm No. 0 broach

rather than undertaking the traditional method of using the 37.5mm No. 0 broach (Fig 2). This will help gradually widen a tight femoral canal in a stepwise manner.

Figure 2 Postoperative anteroposterior radiograph demonstrating the satisfactory implantation of a 37.5mm No 0 stem. Given the tight cortices, this would have been much more difficult without using the 44mm No. 0 broach first.

Figure 3 This 37.5mm No. 0 broach cannot bypass the isthmus at the narrow metaphyseal-diaphyseal junction

Figure 4 This 44mm No. 0 broach can easily bypass the isthmus, unlike the 37.5mm No. 0 broach

By performing this sequence of events, the narrow femur distal to the metaphyseal shaft junction is rasped first, which will help facilitate the 37.5mm No. 0 rasp and stem if required. This is demonstrated in figures 3 and 4.

Being aware of this will help when dealing with proximal tight canal femurs to help minimise any untoward intraoperative complications and aid in the smooth, easy preparation of the femur.

DISCUSSION

This technique has proved effective and efficient in safely and adequately preparing the narrow femur to accept a more appropriate size stem in both total hip replacement and hemiarthroplasty. This technique does not require any extra equipment and is therefore cost neutral.

Dealing with multiple renal arteries in live donor kidney transplants

P Leighton, M Hoff, ML Nicholson, NK Russell
Addenbrooke's Hospital, Cambridge, UK

CORRESPONDENCE TO

Michael Nicholson, E: mln31@cam.ac.uk
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BACKGROUND

Transplant surgeons are increasingly making use of live donor kidney transplants with multiple renal arteries.¹ A number of techniques are available and the reconstructive options can be complex in the absence of an arterial aortic patch.²⁻⁵ Here, we describe the use of a recipient internal iliac artery to create the equivalent of an aortic patch for the anastomosis of multiple renal arteries in live donor kidney transplantation.

TECHNIQUE

The recipient internal iliac artery is mobilised and after ligation and suture at its origin and bifurcation, a suitable section is excised. On the back-table, under cold storage conditions, the explanted internal iliac is incised along its length and opened out to create an arterial

Figure 1a The three renal arteries anastomosed to the internal iliac patch

Figure 1b The reperfed kidney with a patch sutured onto the recipient left external iliac artery