Figure 2 Pointer showing scar tissue

Figure 3 Pointer showing patellar tendon

mechanism. We therefore recommend the infrapatellar fat pad be retained as far as possible during primary total knee arthroplasty.

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Establishing the entry point for in situ pinning of slipped upper femoral epiphysis

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BACKGROUND

Early descriptions of single screw fixation for stable slipped upper femoral epiphysis stipulated a screw perpendicular to the physis¹ and this dogma has persisted. This configuration involves an entry point in the anterior femoral neck,¹ predisposing to 'windshield wiper loosening',² and screw impingement with labral/articular damage.³ To avoid these dangers, where single screw fixation is deemed adequate, we advocate an oblique trajectory,^{3,4} not crossing perpendicular to the physis, with a substantially lateralised entry point (lateral to midpoint intertrochanteric line even for severe slips).

One problem with the oblique screw is difficulty in gaining purchase for the wire because the more acute entry angle makes it prone to slip medially (Fig 1). It is vital to avoid multiple cortical perforations in attempting to obtain the correct entry point as this can cause fracture.⁵

TECHNIQUE

After a percutaneous approach, the desired entry point is defined carefully on anteroposterior/lateral views. A unicortical wire is inserted here, perpendicular to the cortical surface (typically moving the wire driver superomedially). The 4.5mm cannulated drill is used to breach one cortex only (Fig 2). The drill and first wire are removed. The definitive guidewire is placed easily in the cortical breach at the defined entry

Figure 1 Intraoperative lateral view with overlay comparing entry points and trajectories for wire perpendicular to the physis (A), and oblique wire with a more lateral entry point (B). It may be harder to engage the cortex with configuration B because the angle of engagement with the cortex is decreased; the danger here is of having to make multiple perforations to secure the correct entry point.

Figure 2 Lateral view and overlays showing technique for obtaining guidewire purchase: initial wire (A); small ellipse is site of cortical breach at the defined entry point, after cannulated drilling only through the cortex (B); initial wire has been removed and definitive guidewire inserted into the entry point (C); wire has been advanced into the centre of the femoral head (D)

point and angulated appropriately up the femoral neck, the tip centralising in the central third femoral head on perpendicular views (minimising risk of inadvertent joint penetration).

DISCUSSION

Our technique of wire placement has two stages: entry point definition and oblique guidewire passage. Wire placement is simplified by removing the initial concern of anatomical insecurity.

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Handheld modification of the laparoscopic hook using the Trewavis® arthroscopic lateral release hook

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The laparoscopic hook allows the user to dissect and ‘hook away’ tissue. We use a handheld version of the laparoscopic hook (Trewavis, Bayswater, VIC, Australia) at open surgery (Fig 1). It allows precise dissection of tissue, and its longer length, compared with the spatula, enables tissues deep in the pelvis and the upper abdomen to be dissected. Furthermore, it fits on the same diathermy handle as the spatula (Fig 2). It allows dissection, traction and division of tissues using one hand while enabling the surgeon to use the other hand to provide countertraction or to perform other manoeuvres. It is available in 115mm, 150mm (our preferred size) and 190mm.

Figure 1 Handheld version of the laparoscopic hook