Figure 1 Amputated digit secured with vascular slings

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Positioning tips for distal fibula ankle fracture fixation

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Patient positioning is key to successful fixation of distal fibula fractures. When supine, the leg rests in an externally rotated or neutral position. The leg must be rotated internally throughout the operation to enable adequate visualisation of the lateral ankle. Exposure is improved by elevating the ipsilateral hip with a sandbag. However, in patients with a stiff hip or excessive external rotation, this is not enough. In these cases, exposure can be improved further by placing a size 7.5 or greater glove over the foot and securing the glove fingers

Figure 1 Ankle positioned in external rotation using a glove over the foot

over the contralateral foot. This provides internal rotation throughout the operation and covers dirty toes.

A novel technique to reduce the likelihood of proximal junctional failure

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BACKGROUND

Proximal junctional kyphosis is a common complication of adult spinal deformity (ASD) surgery, occurring in 20–39% of cases.¹ When associated with structural failure, PJK is defined as proximal junctional failure (PJF). Half of patients with PJF require revision surgery within six months.²

The Complex Spine Study Group classification includes implant–bone interface failure as a cause of PJF.³ Introducing a preload by forcing an undercontoured rod into the proximal screws of a construct is thought to contribute to this failure mode.¹ According to the Scoliosis Research Society, attempting to avoid this pitfall is the most common surgical PJF prevention strategy employed.⁴ We believe that our technique will help surgeons achieve this goal of avoiding the proximally undercontoured rod.

TECHNIQUE

Having introduced a rod into an all pedicle screw construct, insert set screws loosely at every level. Following this, lock the set screws at each level, except the proximal two levels, using a torque limiting set screw driver and counter torque. Next, remove the loose set screws at the proximal two levels. If the rod rises above the level of the pedicle screw heads, it is undercontoured. In this case, using in situ sagittal benders, bend the rod until it sits snugly inside the pedicle screw heads without the use of any external force. Finally, lock the now properly contoured rod into the proximal two pedicle screws using set screws.

Figure 1 Undercontoured proximal rod held in place with set screws

Figure 2 Undercontoured proximal rod rising above pedicle screw head and appropriate realignment with in situ benders

Figure 3 Appropriately contoured proximal rod sitting snugly without set screws

DISCUSSION

Our technique is proposed as a safeguard against a proximally undercontoured rod. In turn, it is hoped that this will reduce the likelihood of PJK and PJF.

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Positioning of bilateral midshaft femur fractures

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Positioning of a patient with bilateral femur fractures on a fracture table can be challenging, especially when consideration is given to C-arm image intensifier positioning. Although scissoring the contralateral leg when operating is common, it is not possible to provide traction via this method, thereby risking fracture displacement and neurovascular compromise. We recommend using the traction arm upside down on the contralateral leg (Fig 1). The ipsilateral leg can then be placed in traction to be operated on while maintaining traction bilaterally, furthermore allowing access for the image intensifier.

Figure 1 Upside down traction arm for contralateral leg

A simple technique to reduce occlusion in three-way catheters

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We report a simple method to reduce the risk of clot formation in three-way catheters. A 15cm piece of strong medical tape is wrapped around the irrigation lumen and attached to the middle urinary lumen (Fig 1). This prevents the irrigation lumen from cutting off the flow of the irrigation fluid when moved accidentally by the patient. It is important to wrap the tape only after the rigid connectors have been inserted to avoid difficulty connecting them up.