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.

Figure 1 Technique demonstrated on a three-way catheter

A novel technique to reduce proximal junctional kyphosis in adults

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BACKGROUND

Proximal junctional kyphosis (PJK) is a recognised complication of adult spinal deformity surgery. Incidence is reported to be 5–46%.¹ The most significant risk factor is increased age.² The difference in stiffness between the instrumented spine and the spine above the construct is thought to also contribute. Attempts to reduce this difference by ‘soft landing’ using hooks at the top of the construct or transition rods have been described.³ Disruption of soft tissues above the construct may also predispose to PJK.

TECHNIQUE

Following insertion of the pedicle screws, rods were cut 5cm longer than normally required, applied to the screws and then tunnelled

Figure 1 Rods tunnelled under paraspinal muscles and attached to rib clamps

cranially through soft tissues, ending at the vertebra that is cranially adjacent to the upper instrumented vertebra (UIV+1) (Fig 1). The transverse process of the UIV+1 is palpated, and the plane between the multifidus and longissimus muscles is developed with blunt dissection, extending laterally to the rib. Subperiosteal exposure of the medial 3cm of the rib allows passage of the woven polyester band, which is then attached to the clamp and applied to the rods.

DISCUSSION

This novel technique maintains the posterior tension band above the upper instrumented vertebra while ‘soft landing’ the construct via the costotransverse and costovertebral joints. Potential complications include pleural breach and damage to the neurovascular bundle. This is an early report of a new technique; only when our patients have reached two-year follow-up will it be possible to assess the impact on rates of PJK. There have been no early cases of PJK in patients where this technique has been employed.

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