An arrangement of supports to improve access for distal interlocking in intramedullary tibial nailing

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BACKGROUND

A positioning method is described that provides support of the knee in flexion for nail insertion and allows for positioning of the lower limb, both straight and in the figure-of-four position, to allow for distal locking while minimising the need to adjust the x-ray C-arm.

TECHNIQUE

The patient is positioned supine on a radiolucent operating table. A modified support is attached to the operating table on the patient's contralateral side. The support should be placed at the distal thigh (Fig 1). The incision, approach to the proximal tibia, fracture reduction and insertion of the nail are performed in this position. For distal anteroposterior locking, the knee is extended with the thigh under the support and the lower limb is placed flat on the table (Fig 2). Insertion of medial to lateral distal locking screws is performed with the limb placed in the figure-of-four position (Fig 3).

DISCUSSION

This method provides easy access to the fracture for manipulation or open reduction, thigh support for nail insertion, and mobility of the hip and knee for anteroposterior and lateral x-ray imaging.

Figure 1 Support placed at the distal thigh

Figure 2 The knee is extended with the thigh under the support and the lower limb flat on the table

Figure 3 Figure-of-four position