Figure 2 Extensor hallucis longus mark clearly visible after draping.

BACKGROUND

During a knee replacement in the UK, the majority of tibial components are inserted using extramedullary alignment. Proximal landmarks for the alignment jig include the tibial tubercle, anterior to the origin of the posterior cruciate ligament, and the medial third of the tibial tuberosity. Distal landmarks include the centre of the ankle and the second metatarsal. The centre of the ankle can be difficult to assess, especially in obese patients or if the ankle is covered by surgical drapes. The second metatarsal position can be altered dramatically by foot rotation. We describe a technique to aid tibial alignment by using a visible mark at the ankle.

TECHNIQUE

Pre-operatively, the extensor hallucis longus (EHL) tendon at the ankle is marked with a black permanent marker pen (Fig. 1). The patient is asked to extend the big toe. This allows EHL to be visible at the ankle if not, it is easily palpable. EHL has been shown to represent the centre of the ankle.¹ By placing the foot/ankle in a clear bag during draping, the mark over EHL is clearly visible during surgery. The pen mark of EHL at the ankle is used as the distal reference for the extramedullary tibial alignment jig (Fig. 2).

DISCUSSION

One of the known causes for early revision surgery following knee replacement is component malalignment.²⁻⁴ This technique

provides a fixed, visible distal reference at the ankle which may aid tibial alignment.

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Gallow's traction in an incubator for treatment of neonatal femoral fracture

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BACKGROUND

Osteopenia and fractures from nutrient deficiencies can occur in preterm infants. Fractures not related to birth trauma are diagnosed in 1.2% of preterm infants between the 24th and the 160th day of life.¹ They are usually associated with a low intake of calcium and phosphorous.^{2,3} Poor bone mineralisation has been shown in 55% of infants born at less than 1000 g. Treatments of femoral fractures in an incubator have practical difficulties making treatment with a hip spica or splinting difficult.

TECHNIQUE

We report the use of 'Gallow's' traction in an incubator using a frame made from thermoplastic material (Fig.1). The frame is constructed from standard thermoplastic splints (Fig. 2) and provides vertical-extension 'Gallow's' traction to a femoral fracture in a pre-term infant whilst still in an incubator.

DISCUSSION

In the pre-term infant, treatment of a femoral shaft fracture can be difficult using the vertical-extension method of traction as they are commonly in an incubator. This method employing a frame made from simple and cheap thermoplastic splints can be

Figure 1 Infant being treated with vertical-extension traction using the frame in an incubator.

Figure 2 Traction frame constructed from thermoplastic material.

used inside an incubator and allows good access to the infant. The frame is re-usable and can be easily cleaned.

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Dealing with broken locking bolts in exchange intramedullary nailing

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BACKGROUND

When performing an exchange intramedullary nailing, the presence of a broken locking bolt can be problematic, regardless of whether it is broken at the near or far cortex (Fig. 1). The head of the bolt is usually removed with relative ease; however, thread