The novel use of the Yankauer sucker as a radiolucent drill guide in orthopaedic surgery

R Allom, A Saad, K Kunasingam, R Amr

King's College Hospital NHS Foundation Trust, UK

CORRESPONDENCE TO

Richard Allom, E: richard.allom@nhs.net

BACKGROUND

Percutaneous screw placement has become frequent in orthopaedic surgical practice as minimally invasive techniques have evolved. Intramedullary devices are often regarded as the gold standard for the operative management of long bone fractures. When the use of a retrograde intramedullary femoral nail is indicated, this technique typically necessitates the placement of an anteroposterior proximal

Figure 1 A sterile, single use, malleable Yankauer suction instrument with smooth inner lumen

Figure 2 A 4.5mm drill bit inside the Yankauer sucker

Figure 3 The device in use

locking bolt. This is placed under image intensifier guidance, precluding the use of a conventional drill sleeve, which obscures imaging the proximal fenestration of the nail. The anatomy of the proximal anterior thigh is such that the risk of vascular injury during proximal anteroposterior locking screw placement should not be ignored.

The Yankauer sucker is a suction device used for clearing operative sites during various surgical procedures as well as oropharyngeal secretions. They are usually constructed from rigid, semirigid or flexible vinyl (Fig 1).

TECHNIQUE

A Yankauer sucker is divided about 75% of its circumference at the centre of the bulbous portion with a scalpel blade or stout scissors, creating a variable angle, radiolucent drill guide (Figs 2 and 3). Attention must be paid to the size of the drill bit in relation to the mouth of Yankauer sucker to avoid producing swarf from drilling against the plastic.

DISCUSSION

We present a novel use for the Yankauer sucker in providing a safe, radiolucent drill sleeve for operating at depth through a minimally invasive technique. In addition to the application described, this device has proved useful for minimally invasive fixation of bony posterior cruciate ligament avulsion from its insertion on the posterior tibia. Finally, we have extended its application to percutaneous screw fixation of the proximal humerus where the axillary nerve is at risk.