

Technique for contouring the cut end of infix bars and external fixator pins

JM Stevens^{1,2}, S Shiels¹, TJS Chesser¹

¹Department of Trauma and Orthopaedics, Southmead Hospital, Bristol, UK

²Knox Orthopaedic Group, Melbourne, Australia

CORRESPONDENCE TO

Jarrad Stevens, E: drjarradstevens@hotmail.com

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BACKGROUND

Anterior subcutaneous pelvic fixation (infix) achieves bony stabilisation of unstable pelvic fractures, and is considered for rotational or vertically unstable fractures requiring operative intervention (Figure 1).^{1,2} The infix bar is cut to size with sterile heavy cutters. This leaves one end of the rod on the cut surface sharp to touch (Figure 2a). We believe that contouring the cut end of the rod to a smooth rounded edge allows a more benign environment for surrounding tissue to heal (Figure 2b,c). Sharp surfaces are also encountered on cut external fixation pins. We present a simple technique to achieve a smooth rounded finish with the infix bar and external fixator pins.

TECHNIQUE

After the insertion of multi-axial pedicle screws into the anterior inferior iliac spine, a subcutaneous corridor superficial to the fascia between the screws is created. The rod is pre-contoured and placed



Figure 1 Anterior subcutaneous pelvic fixation (infix) for pelvic fracture, sacroiliac screw posteriorly.

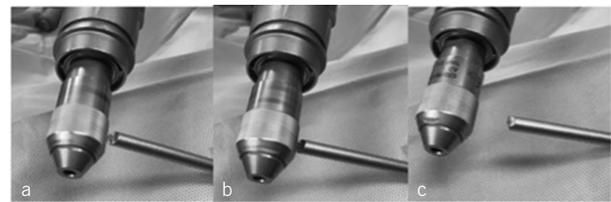


Figure 2 Contouring the rod: a) Sharp surface is brought to the power drill chuck surface. b) Rod is ground against rotating power driver. c) Rod end has been smoothed down.

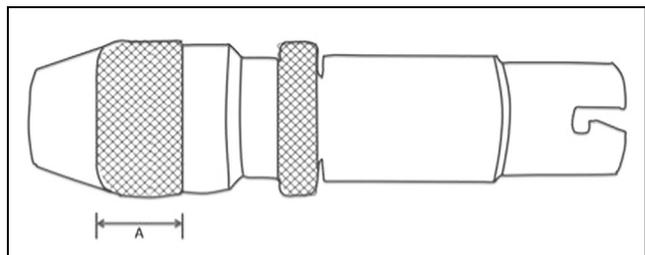


Figure 3 Power drill chuck: section A is used for smoothing the cut surface of the rod.

into the subcutaneous corridor. The length of the rod is determined and then the rod is removed. Large sterile rod cutters are used to cut the rod to size. To smooth the cut surface of the rod, the power drill is moved to full speed and the rod placed on to the rotating chuck grip surface (Figure 3 section A) as if it were a grindstone, and the sharp ends are smoothed away (Video 1). Once smoothed, the rod is placed and secured into the desired position. The same technique can be used on external fixation pins after they have been cut to the desired length.

DISCUSSION

We have found that this simple technique provides a smooth surface to prevent any unnecessary irritation to tissue once the rod is secured in place. External fixation pins can be rendered safe to touch after smoothing the sharp end. This technique requires no extra equipment on the standard instrument set.

References

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