

The Cannelon method: A method to fill the bony deficit following removal of a dynamic hip screw (DHS)

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Citation

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Abstract

A novel technique for filling the bony defect in the proximal femur following removal of a dynamic hip screw.

BACKGROUND

Conversion of a DHS to a more biomechanically stable implant is required in the cases of a non-union, implant failure, implant cut out and periprosthetic fractures. However, on its removal a residual bony deficit is usually present in the proximal femur. We present a simple technique that enables filling of this deficit, therefore permitting a new implant to be positioned.

METHOD

Located on the tray of the Stryker® Gamma Ti nail is a trocar and introducer (Figure 1). The introducer can be guided up the tract of the sliding hip screw, using image intensifier guidance to ensure that no false tract made inadvertently. When in position the introducer can be filled with small pieces of allograft. Placing the trocar into the introducer, a toffee hammer can be used to impact the graft into the tract, whilst slowly removing the introducer (Figure 2). This provides bone graft to be tightly packed into the proximal femur, thus providing reconstituted bone stock for subsequent insertion of another implant (e.g. cephalomedullary reconstruction nail).

DISCUSSION

This is an easy and reproducible method for reconstituting bone stock in the proximal femur. The introducer is conveniently the correct size for the tract created by the sliding screw and therefore provides an ideal guide for introduction of the bone graft. We have used this technique successfully on 15 patients up to the date of submission. Instruments from other companies may work just as well, however we have no experience with these and are thus advocating the instruments from Stryker®.

Figure 1

Figure 1: Trocar and introducer located in the Stryker® Gamma Ti nail

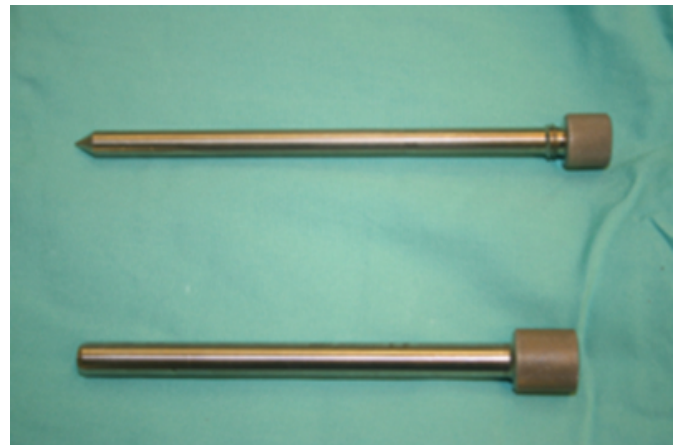
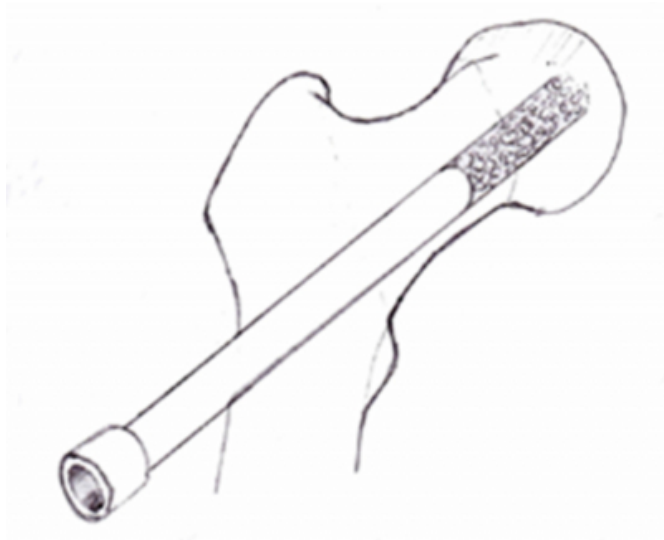


Figure 2

Figure 2: Illustration showing the insertion the introducer and the subsequent placement of the allograft



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References

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