

Freehand Locking of Intramedullary Nail

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ABSTRACT

Placing a loop of suture on an intramedullary nail locking screw keeps the screw firmly on the screwdriver. The screw can be retrieved should the need arise.

As with the proximal screw, an intramedullary locking screw may pass through a large soft-tissue envelope into the thigh for a retrograde nail. Should the screw become separated from the screwdriver, time is lost retrieving the screw. Placing a loop of suture around the screw head (Figure) allows solid, temporary fixation of screw to screwdriver. The combined screw-screwdriver can be manipulated as a solid rod, and the screw tip can be “walked” along the surface of the bone and dropped into the depression of the screw hole.

This technique works with a cannula. The suture twists around the screwdriver as the screw is inserted.

If the screw needs to be retrieved, the process is simple.

After the screw is fully seated, the suture is cut below skin level.

I have used this technique for a few years. I reserve it for situations in which the soft-tissue envelope exceeds the length of

the screw. I routinely use a dyed 0-Vicryl suture.

Using a heavy nonabsorbable suture may be helpful if the nail is to be removed later (the suture may help in finding the screw head). The stitch is tagged with a hemclip just below skin level. With the C-arm, the suture may be found easily.

ACKNOWLEDGMENT

Thanks to Eric Heffelfinger (Zimmer Great Lakes), who showed me this technique.

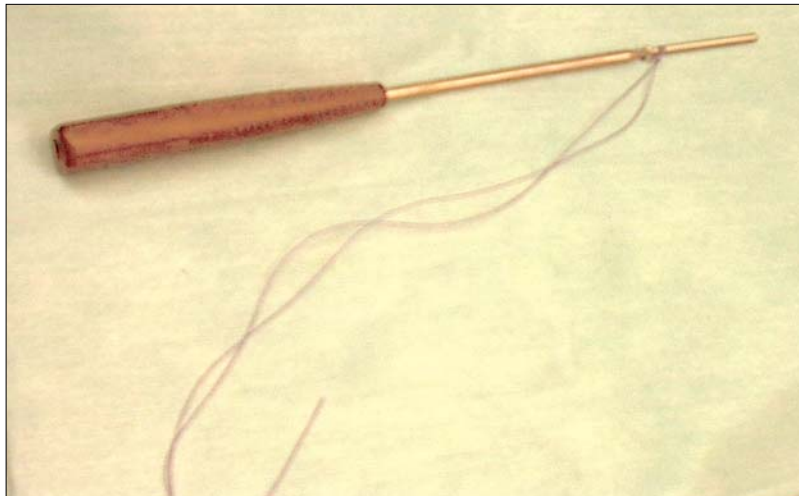


Figure. A suture is tied near the head of an intramedullary locking screw to help control the screw during insertion and, if necessary, removal.

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