

A Simple Technique for Centralisation of Distal Femoral Nail to Avoid Anterior Femoral Impingement and Perforation

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Abstract : Introduction: Anterior femoral perforation or distal anterior nail position is a known complication of femoral nailing specifically in pertrochantric fractures fixed with cephalomedullary nail. This has been attributed to wrong entry point for the femoral nail, nail with large radius of curvature or malreduced fracture. Left alone anterior perforation of femur or abutment of nail on anterior femur will result in pain and risk stress riser at distal femur and periprosthetic fracture. There have been multiple techniques described to avert or correct this problem ranging from using different nail, entry point change, poller screw to deflect the nail position, use of shorter nail or use of curved guidewire or change of nail to ensure a nail with large radius of curvature. Methods: We present this technique which we have used in order to centralise the femoral nail either when the nail has been put anteriorly or when the guide wire has been inserted too anteriorly prior to the insertion of the nail. This technique requires the use of femoral reduction spool from the nailing set. This technique was used by eight trainees of different level of experience under supervision. Results: This technique was easily reproducible without any learning curve without a need for opening of fracture site or change in the entry point with three different femoral nailing sets in twenty-five cases. The process took less than 10 minutes even when revising a malpositioned femoral nail. Conclusion: Our technique of using femoral reduction spool is easily reproducible and repeatable technique for avoidance of non-centralised femoral nail insertion and distal anterior perforation of femoral nail.

Keywords : femoral fracture, nailing, malposition, surgery

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