

Letter to the Editor

Does PFNA II Avoid Lateral Cortex Impingement for Unstable Peritrochanteric Fractures?

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To the Editor

We read the article entitled “Does PFNA II Avoid Lateral Cortex Impingement for Unstable Peritrochanteric Fractures?” by Macheras et al. [3] with great interest. We commend the authors for confirming that the Proximal Femoral Nail Antirotation (PFNA)-II could avoid lateral cortex impingement; they concluded a flattened lateral surface and smaller mediolateral angle could decrease the pressure on the lateral trochanteric wall.

Beginning in August 2009, we have used PFNA-II to treat more than 300 cases of peritrochanteric and

intertrochanteric fractures (AO/OTA: 31A) [4]. In our opinion, the operative technical evolution in nail insertion may be more important than instrument modification.

In cephalomedullary nailing, it is important to ensure the instrument insertion line (guide wire, reamer, and the nail) and the femoral canal line are coaxial. However, there are several reasons that make this unachievable in some patients [1, 2]. In addition to morphologic features of the fracture (some can be reduced only with the hip in abduction) and a stiff spine in geriatric patients, the soft tissue mass about the hip, operative drapes, or a laterally oriented operating trajectory of the side-standing surgeon can result in a shift of the ideal trochanteric tip entry point and gradual enlargement in a lateral direction. A laterally enlarged oval hole combined with the existing trochanteric

(Re: Macheras GA, Koutsostathis SD, Galanakis S, Kateros K, Papadakis SA. Does PFNA II avoid lateral cortex impingement for unstable peritrochanteric fractures? *Clin Orthop Relat Res.* 2012;470:3067–3076.)

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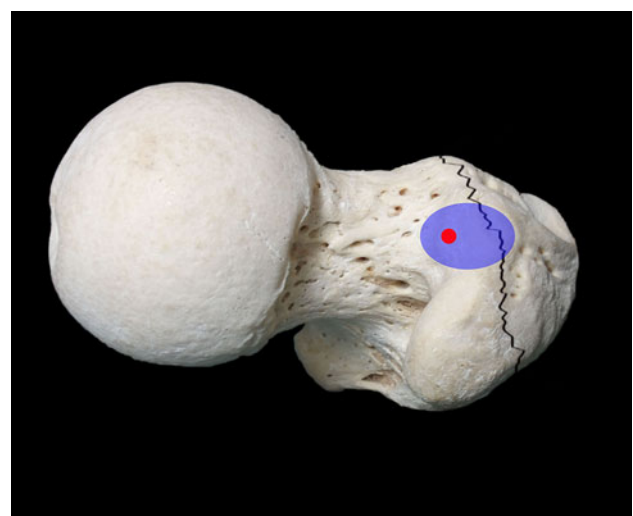


Fig. 1 Medial migration of the entry point (red point) from the exact tip of the greater trochanter produces an optimal aligned tube (blue area) after reaming.

fracture line will lead to more lateral placement of the intramedullary nail than intended.

To avoid lateralization, we move the entry point slightly medial (approximately 5 mm) from the trochanteric tip, near the medial wall of the greater trochanter (Fig. 1). There are several advantages to medial reaming. First, it avoids the hard-crest bone of the head-neck fragment, preventing medial abutment and thus reduces the risk of varus reduction of the proximal head-neck fragment or a high helical blade position in the femoral head, both of which are undesirable. Second, it provides adequate space for nail insertion, preventing a wedge-opening effect between the head-neck fragment and the shaft fragment. Third, it provides a well-aligned tube after reaming (even with lateralization) for nail insertion, avoiding pressure on the trochanteric lateral cortex, and nail-cortex impingement or even lateral wall rupture.

We thank the authors for sharing their experience. We agree with their conclusion that regardless of the implant choice and its specific technical characteristics, the technique of inserting is the key to ensuring a stable fixation and preventing major complications.

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