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**Clinical & radiological assessment of intertrochanteric fractures treated with PFN A2**

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**ABSTRACT**

**BACKGROUND:** Intertrochanteric fracture is one of the most common fracture seen in elderly age group. In the attempt to attain stable fixation, advancement in fixation methods continued starting from DHS to present day PFN A2 and gamma nail. This study was done to find out PFN A2 outcome, with an objective of finding significance of various radiological parameters.

**METHODS:** 43 patients were included in the study, underwent closed reduction and PFN A2 fixation. They were followed up at 1month, 3months and 6months postoperatively and tip apex distance, Cleveland index, parkers ratio, nail protrusion height, and neck shaft angle was calculated. Statistical correlation of each parameter with complications such as helical blade cut out back out was derived.

**RESULTS:** Tip apex distance and Cleveland index was found to influence the position of screw and thereby the final outcome. No statistical correlation was derived between Parkers ratio, neck shaft angle and nail protrusion height with the complications. Functional outcome as calculated by harris hip score was found to be satisfactory in most of the patients. There was only negligible mean loss of functional outcome postoperatively as calculated with parkers mobility score

**CONCLUSION:** Thus, PFN A2 confirms to be stable fixation for both stable and unstable intertrochanteric fracture with fewer complication and good functional outcome in short period of time.

We recommend TAD of 20-30mm and optimal position of Cleveland index (centre centre or inferior centre) to avoid implant failure.

**KEYWORDS:** intertrochanteric fractures, tip apex distance, Cleveland index, parker's ratio, harris hip score, nail protrusion height.