

ABSTRACT

Background: Unstable fractures accounts for approximately 50% to 60% of all intertrochanteric fractures. Failure rates of (DHS) dynamic hip screw for unstable fracture patterns are as high as 50%. Proximal femoral nail is technically more demanding surgery and is considered as a better implant for unstable fractures. This study was done to compare the results of using Trochanteric stabilization plate in addition to dynamic hip screw versus proximal femoral nail in treatment of unstable fractures.

Methods: A prospective study was conducted comparing functional, clinical and radiological outcomes of proximal femoral nailing versus trochanteric stabilization plate with dynamic hip screw in patients with unstable intertrochanteric fractures (26 in each group) and with 23 in either available for final analysis.

Results: In our study, Mean duration surgery in DHS with TSP was 88.09 minutes and in PFN it was 60.30 minutes ($p=.000$), Average blood loss in DHS with TSP was 172.6 ml and in PFN group it was 58.6 ml ($p=.000$), Average duration to full weight bearing in DHS with TSP was 13.27 weeks in PFN it was 10.15 weeks ($p=.000$). Varus collapse with neck shaft angle, less than 125° was seen in 2 cases of DHS with TSP alone ($p=.244$). Non union at fracture site was seen in 2 cases of PFN alone ($p=.244$). The mean Harris hip score in DHS with TSP group was 85.74 while in the PFN group it was 83.61 ($p=0.243$).

Conclusions: Use of TSP with DHS can give similar results as PFN in unstable IT fractures in terms of functional outcome by Harris hip score, radiological union and preventing varus collapse. Statistically significant difference were found in terms of duration of surgery, intraoperative blood loss and time taken to full weight bearing which are inherent to all closed reductions and intramedullary device fixation. Addition of TSP to DHS gives good lateral wall buttress which prevent excessive medialisation of shaft thereby giving comparable result to PFN.

Keywords: Unstable intertrochanteric fractures, Trochanteric stabilization plate, Dynamic Hip screw, Proximal femoral nailing.