

# COMPARISON OF TREATMENT OF UNSTABLE INTERTROCHANTERIC FRACTURES BY INTRA AND EXTRAMEDULLARY IMPLANTS IN EL HADRA UNIVERSITY HOSPITAL

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## Introduction

To achieve union and restore the normal biomechanics of the hip region after unstable trochanteric fractures, surgical intervention is a must. There are two options for internal fixation: extramedullary and intramedullary. Dynamic hip screw (DHS) as extramedullary fixation is widely used to surgically treat intertrochanteric fractures. However, it sometimes fails to give good results. Intramedullary fixation methods include gamma nail placement, which is considered by some surgeons to be a better choice as it can avoid the complications occurring with extramedullary fixation.

## Aim of the Work

The aim of this work was to compare the intramedullary and extra medullary fixation in management of unstable intertrochanteric fractures in El Hadra University Hospital.

## Patients and Methods

This is a retrospective study of 40 patients with recent unstable intertrochanteric fractures between January 2020 and December 2020. 20 of them were fixed by intramedullary gamma nail as a group I and the other 20 patients were fixed by extramedullary DHS as a group II. The mean age for group I was 50.05 (20- 83years) and the mean age for group II was 60.5 (22-91 years). 14 patients from group I were males and 12 from group II were males. All fractures were classified according to Evan’s classification to be unstable (Evan’s type III, IV, V).

## Results

19 patients (95%) of group I achieved full union and 1 patient had nonunion with nail breakage. No patients in group I had malunion. 17 patients (85%) of group II achieved good union with 1 patient having nonunion with implant failure. 2 patients (10%) of group II had femoral shaft medialization and varus malunion.

Table 1: Comparison between the groups with perioperative variables.

	Group I Mean (range (range)	Group II Mean (range)	P.
Need for blood transfusion (units)	0 (0-1)	2 (0-3)	<0.001
Postoperatiive horpital stay (day)	2 (1-4)	5 (2-11)	<0.001

Table 2: Complications developed in the postoperative period.

	Group I N (%)	Group II N(%)
Infection	1 (5%)	3 (15%)
Nonunion	1 (5%)	1 (5%)
Malunion	0 (0%)	2 (10%
Implant failure	1 (5%)	1 (5%)
Lag screw cut through	0 (0%)	1 (5%)

## Conclusion

It is concluded that this study supported the previous series in the literature, which proved that unstable intertrochanteric fractures can be fixed by intramedullary gamma nail or extramedullary DHS but intramedullary fixation gives better results than extramedullary fixation.