

A 7 Year Story Of Reverse Oblique Fracture Clinical Outcomes Comparing Extramedullary To Intramedullary Fixation In Tertiary Hospital

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INTRODUCTION:

Reverse oblique trochanteric femur fractures are a particularly unstable group of fractures that demand greater surgical skill and techniques due to their complexities. The evolution of MIPO technique and better understanding of these fractures has seen the rise of the use of cephalomedullary fixation. This retrospective review will outline key factors in determining success of these two methods.

MATERIALS & METHODS:

This is a retrospective study conducted in a tertiary hospital where data was collected between 2011 and 2018. Patients within the AO/OTA 31-A3 classification who had a minimum 1 year follow up were included. 15 samples were collected (9 females and 6 males, aged between 24 and 88). Efficacy of fracture fixation was measured by surgery duration (Hours), hospital stay (Days), infection rate, tip apex distance (Millimetres), time until full weight bearing (Weeks) and presence of callus (Weeks). Statistical analyses were conducted using Statistical Package of the Social Sciences (SPSS) version 22.0 for Windows (SPSS Inc, Chicago, IL).

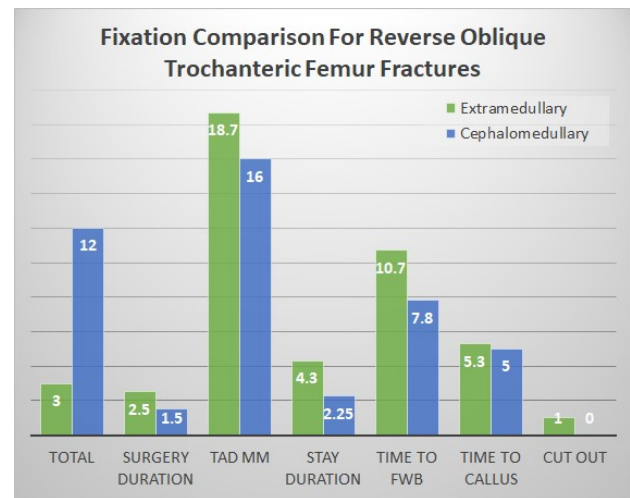
RESULTS:

This study demonstrated a preference for the cephalomedullary device, amounting to 80% of the cases. It also demonstrated better outcomes across all efficacy measures used in this study. Both groups had no infection. There was one incident of cut out associated with the use of the extramedullary device (135 degree sliding hip screw). However, due to the sample size, there is no statistical significance.

DISCUSSIONS:

Reverse oblique fractures are unstable. Weight on the fractured limb causes shearing leading to

telescoping of implant, especially in sliding hip screw fixation. Although cephalomedullary fixation has the biomechanical advantage of shorter lever arm compared to extramedullary implants, there are limited clinical reports on cephalomedullary nailing. High failure rates were found in fixations using the 95° screw plate.



CONCLUSION:

Though the study results are in favour of cephalomedullary devices, a larger sample size would be required for statistical significant data.

REFERENCES:

Ozkan K, Eceviz E, Unay K et al; Treatment of reverse oblique trochanteric femoral fractures with proximal femoral nail. International Orthopaedics (SICOT) (2011) 35:595–598