

Proximal Femoral Nail-A Minimally Invasive Treatment for Intertrochanteric Fractures-Institutional Experience GGH/GMC Guntur

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I. Introduction:

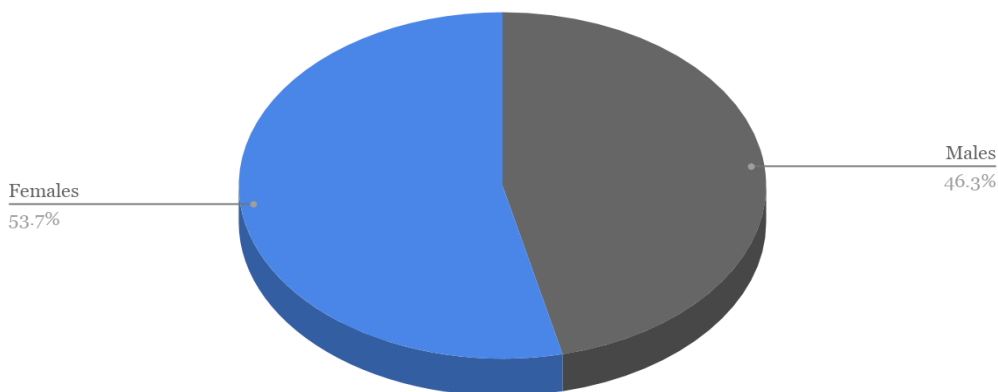
Intertrochanteric fractures are the commonest fractures in elderly. Due to the increase in life expectancy and sedentary life we are coming across more and more of such fractures in our daily practice. Surgery is almost always recommended treatment as morbidity and mortality associated with non-operative treatment is very high. Patients always have pre-existing comorbidities that dictate the ultimate outcome. Our study aims at assessing the surgical management of intertrochanteric fractures using proximal femoral nail.

II. Materials And Methods:

In this study patients who presented to the Department of Orthopaedics, Government General Hospital, Guntur between June 2019 to June 2020 with INTERTROCHANTERIC FRACTURES were included. Total of 82 patients were included in the study. Medically unfit patients and patients not willing for surgery were excluded.

Total 82
Males-38 Females-44

GENDER



PROCEDURE: The patient is positioned supine on the fracture table. It is important to ensure that the ipsilateral hip is in an adducted position.

To reduce the fracture, traction was applied in the direction of the length of the extremity.

This will distract the fragments and regain length.

The second step is internal rotation. Check each step with the image intensifier.

Adequate draping, painting and scrubbing was done.

Entry point was identified by junction of the anterior one-third and posterior two-thirds of the apex of the greater Trochanter. Parallel incision was given on the fasciae of Gluteus Medius and fibres were split. Greater Trochanter was pierced and entry point was widened by bone awl.

Insert the guide wire into the femoral shaft and check its position using image intensification. Ideally, the guide wire's position in the femoral shaft should be central.

PFN of adequate diameter was mounted on the zig and passed through the marrow. Remove guide wire.

Stab incision is made where the sleeve hits the skin.

Insert the protection sleeve with its trocar and push it through the soft tissues until it abuts against the greater trochanter. Pass the guide wire through the neck of the femur. Then withdraw the trocar and insert an appropriate drill bit over the guide wire. Ream out the trochanteric area. Insert cancellous lag screw of adequate length keeping tip apex distance of less than 2.5cm.

Remove the guide wire.

Similarly insert another k-wire through the proximal sleeve and drill with appropriate drill bit followed by inserting about 15mm smaller derotation screw.

Distal locking is done. Reduction is checked in image intensifier and traction is reduced to achieve compression. Final tightening of screws is achieved. Zig is removed. Thorough wash is given. Hemostasis is achieved and suturing is done.

III. Case Studies

CASE 1

PRE-OP



INTRA-OP



POST-OP



PRE-OP



INTRA-OP

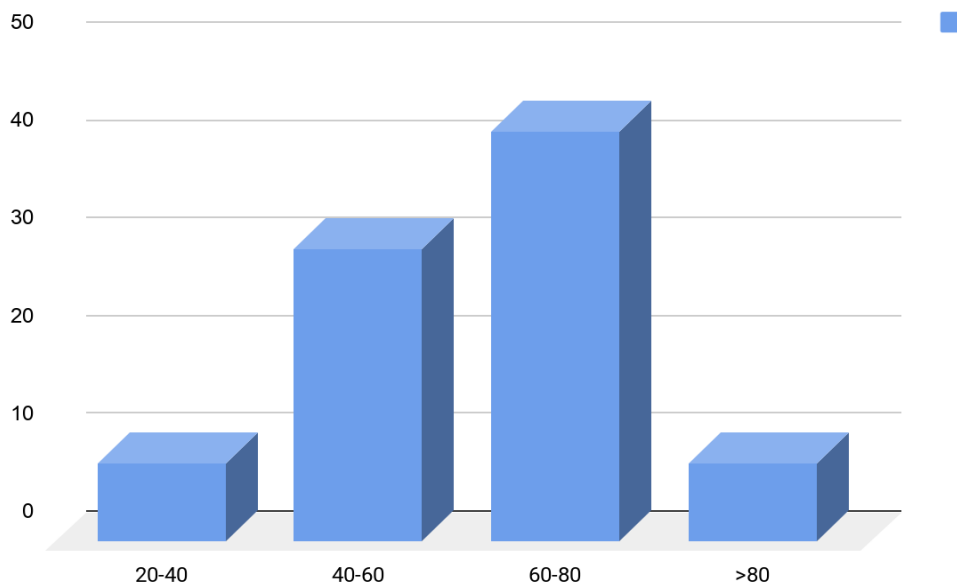


POST-OP



IV. Discussion

82 patients with intertrochanteric fractures from June 2019 to June 2020 with mean age of 68.8 years, who underwent proximal femoral nailing between were included in the study. Maximum age of the patient was 89 years, minimum age was 26 years.



Majority of the patients were between 40-80 years. Of these 82 cases majority of the cases were due to slip&fall, with predominance of right side.

52% of cases were BOYD and GRIFFIN type 2 fractures.

COMPLICATIONS:

- 1 case-screw migrated into the joint
- No cases of nail breakage
- Failure to get anatomical reduction in 3 cases
- Failure to put a derotation screw in 2 cases
- Post operatively 1 case had wound infection
- 1 case showed backed out leg screw on follow up

Mean duration of hospital stay was around 10 days. Mean time of full weight bearing was 12.6 weeks. Mean operation time was 41.8 minutes. Less blood loss of average 100 ml. Good to excellent results were seen in 90% of cases, with smaller incision, less blood loss, shorter operation time, early mobilisation of the patient, decreased hospital stay and better wound healing.

V. Conclusion:

From this study we consider all though PFN is technically demanding, with proper technique, it gives excellent results. PFN is an excellent implant for treatment of intertrochanteric fractures.

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