

Calcar Buttress Screw Fixation: A Wonderful Modality to preserve the Head of Femur

Vidyarthi A, Sirsikar A, Johari V

Study performed at Department of Orthopaedics, Netaji Subhash Chandra Bose Medical College, Jabalpur MP

Abstract

Case Details: A 25-Year-old male presented to our department, with complaints of pain, swelling and inability to move his right lower limb, on examination swelling, tenderness was present over right hip and restricted movement at right hip joint. Radiological examination revealed fracture Neck of Femur Right, Pauwels grade 3 with more than 50° and Garden Classification Type 4.

Operative Details: Closed reduction internal fixation with 3, 7.5mm self-tapping cannulated cancellous screw was done in biplanar double supported screw fixation.

Keywords: Calcar Buttress Screw Fixation, fracture Neck of Femur, BDSF

Address of correspondence

Dr. Ashok Vidyarthi, MS (Orthopaedics), Professor & Head, Department of Orthopaedics, Netaji Subhash Chandra Bose Medical College, Jabalpur (M. P.)

Email: vidyarthi_ashok@rediffmail.com

How to site this article

Vidyarthi A, Sirsikar A, Johari V, Calcar Buttress Screw Fixation: A Wonderful Modality to preserve the Head of Femur. Ortho J MPC. 2022; 28 (2):86-87

Available from:

<https://ojmpc.com/index.php/ojmpc/article/view/164>



Introduction

Fractures of neck of femur that are associated with risk of avascular necrosis of hip joint is a challenge for surgeons using standard operative techniques.

Case Details

A 25-Year-old male presented to our department, with complaints of pain, swelling and inability to move his right lower limb, on examination swelling, tenderness was present over right hip and restricted movement at right hip joint. Radiological examination revealed fracture Neck of Femur Right, Pauwels grade 3 with more than 50° and Garden Classification Type 4.

Operative Details

Closed reduction internal fixation with 3, 7.5mm self-tapping cannulated cancellous screw was done in biplanar double supported screw fixation.

Result

The functional outcome and pain were assessed with Harris Hip score. We observed

fair result in Harris Hip score, score was 73.2 in 3 months with 60 degrees of flexion, 15 degrees of extension, 35 degrees of abduction, 20 degrees of adduction. No complication was noted till 3 months of follow up.

Discussion

Neck of femur fracture is prone to avascular necrosis thus anatomical fixation is essential to achieve a stable and mobile hip. Secondary procedure for hip arthroplasty is uncommon after BDSF, and there is a small risk of neck perfusion related complication, but no such complications were noted in our case.

Conclusion

Fracture neck of femur managed with self-tapping cannulated cancellous screw in biplanar double supported screw fixation to restore neck femur anatomy and to achieve a good function outcome. The achieved results with the BDSF method in terms of fracture consolidation are far more successful than the results with conventional fixation methods. The BDSF-method ensures reliable fixation, early rehabilitation and excellent long-term outcomes.

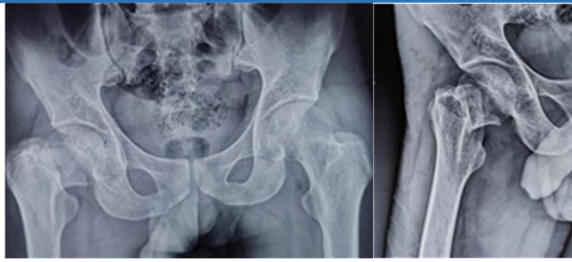


Figure 1 & 2 Pre-Operative X Rays

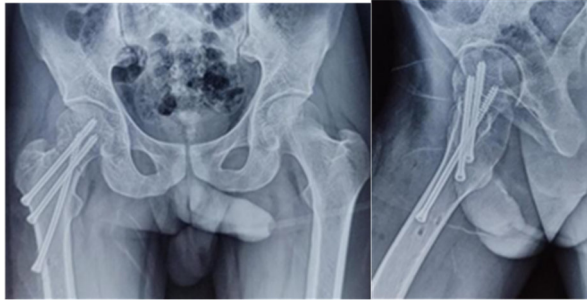


Figure 3 & 4-Post-Operative X Rays



Figure 5,6,7,8,9, 10- Three Months Follow-up



References

1. Asnis SE, Wanek-Sgaglione L. Intracapsular fractures of the femoral neck. Results of cannulated screw fixation. *J Bone Joint Surg Am.* 1994 Dec 01;76(12):1793-1803.
2. Lu-Yao GL, Keller RB, Littenberg B, Wennberg JE. Outcomes after displaced fractures of the femoral neck. A meta-analysis of one hundred and six published reports. *J Bone Joint Surg Am.* 1994 Jan; 76(1):15-25.
3. Tidermark J, Ponzer S, Svensson O, Söderqvist A, Törnkvist H. Internal fixation compared with total hip replacement for displaced femoral neck fractures in the elderly. *J Bone Joint Surg Br.* 2003 Apr;85-B(3):380-388.