



Cheaper Alternative Procedure for Sub Trochanteric Fractures – Results of 15 Cases Treated with DCS Plate and Screws in A Tertiary Rural Set Up

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ABSTRACT

Background: Ideal implant for sub trochanteric fracture is PFN. Alternative implant is DCS plate and screws. DCS plate and screw is cheaper alternative for PFN.

Material and methods: This is a prospective study of 15 cases of sub trochanteric fractures treated at Govt.Vellore Medical College, Tamil Nadu from Jan 2013 to June 2016. Evaluation done with Harris hip score.

Results: 5 cases had excellent results, 4 had good result, 4 had fair results, and 3 had poor results.

Conclusion: DCS plate and screw is a cheaper alternative for PFN. The instrumentation is simple and fool proof.

KEYWORDS : cheaper alternative, sub trochanteric fractures, DCS plate and screws.

Introduction:

Various treatment options were suggested for sub trochanteric fractures. PFN is considered ideal implant of choice. But the problem with PFN is the cost and difficult instrumentation. Several occasions open reduction need to be done to ensure reduction. DCS plate and screws offers a cheaper alternative to PFN.

Materials and Methods:

15 cases of sub trochanteric fractures between the age group of 25 to 65 were selected. Pathological fractures, compound fractures, polytrauma cases were excluded. The period of study was from Jan 2013 to June 2016. All cases were operated at Govt. Vellore Medical College, Tamil Nadu, India.

After routine radiological evaluation, patients were classified according to Sensheimer classification. 7 were type 3, 5 were type 4, 3 were type 5. 13 cases were male, 2 cases were female. Mode of injury RTA 10, fall from height 5.

All cases underwent open reduction and internal fixation with DCS plate and screws under fluoroscopy control. Patient was put on fracture table and reduction attempted. 15 cm incision was made over the upper 1/3 of the shaft of femur with the upper end along the flare of trochanter. Vastus lateralis detached minimally and elevated anteriorly. Guide pin placed under fluoroscopy control. Triple reaming and tapping done. Fracture site fixed with DCS plate and screws.

Sutures were removed on 12th POD. All cases received per operative and post-operative antibiotics. Non weight bearing mobilization begun after pain toleration. Partial weight bearing after radiological union.

The cases were followed up at 6 weekly intervals for 5 months and thereafter 3 monthly intervals for 2 years. The cases were functionally evaluated using the Harris hip score.

Results: 5 cases had excellent results, 4 cases had good results, 4 had fair results, and 3 had poor results. The poor results were due to premature weight bearing resulting in varus collapse.

Discussion:

Sub trochanteric fractures present a challenge to orthopedic surgeon. Closed reduction with PFN fixation gives good results. But the problem with PFN are costlier implant, difficult instrumentation and open

reduction sometimes warranted due to inability to achieve reduction.

DCS plate and screws are cheaper, easily available, fool proof instrumentation. Open reduction ensures near normal fracture reduction. The disadvantages of DCS are: longer incision, chances of infection, avascularity of bone fragments, varus collapse.

Picture 1- showing Post operative image of 30 yr old Male



Picture 2 showing Post operative image of 31 yr old Male



Picture 3 showing Preoperative image of 35 yr old Male**Picture 4 showing Post operative image of 35 yr old Male**

Conclusion: DCS plate and screw is a cheaper alternative to PFN because it is easily available and the instrumentation is fool proof.

Literature review:

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