Summary
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The management of distal femoral fractures has always been a test to the skills of the orthopaedic surgeons. Articulation and weight bearing at distal femur has led to its broadening to provide stability along with wide range of movements and because of its cancellous nature the management of fractures of distal femur have presented a challenge to orthopaedic surgeons.

The mechanism of injury in most supracondylar fractures is thought to be axial loading with varus/valgus or rotational forces. In younger patients the injury typically results after high speed trauma related to motor vehicle or motor cycle accidents. In elderly fracture frequently occur after a motor slip and fall on a flexed knee, leading to comminuted fractures through compromised osteoporosed bone.

Various modalities of treatment both conservative and operative have used in treatment of fractures of distal third of femur but still a consensus has not been made as to which is the best method of treatment. Apart from the usual problem of confining the patient to bed, conservative treatment causes problems such as skin ulceration, hypostatic pneumonia, deep vein thrombosis urinary tract infection and many other complications associated with prolonged traction and immobilisation.

Operative methods for osteosynthesis of supracondylar region of femur can be difficult for several reasons. Thin cortices, comminution, osteopenia and wide medullary canal make secure internal fixation difficult to achieve even for an experienced surgeon. Although better methods of fixation have improved clinical results, the operative management of these fractures is far successful.
Eight cases of distal femoral fractures were treated by open reduction and internal fixation by A.O., Dynamic condylar screw in Department of orthopaedics, M.L.B. Medical College, Jhansi. Standard surgical techniques were used for operative open reduction and internal fixation. Fracture site was opened by a lateral incision made over lateral aspect of thigh, parallel to the shape of femur beginning at the knee joint. Anatomical reduction of the fracture achieved and implant was applied according to standard techniques.

Patients were studied from the day of their admission through pre, intra and post operative period to complete follow up, clinical and radiodgical assessment at successive visits, till the patients achieved maximum possible functions of the injured limb. The data thus collected was analysed, evaluated and compared with results to previous studies described in literature and we found our results to be very much similar to different studies by various authors. Then we went ahead to pursue the final aim of this study, i.e., to evaluate the results of Dynamic condylar screw in distal femur fractures and to suggest its specific indications.

We used Neer et al (1967) numerical system for evaluating the quality of results in individual cases of our study and finally we could conclude, that anatomical alignment, compression at fracture site and rigidity of fixation was good with AO dynamic condylar screw. Fracture union aoccured swiftly and early, functional results were significantly better and overall quality of results were good with this procedure. Few important facts that came to light in this study were, results were better when fracture was closed or simple, when there was no comminution at fracture site and when the range of knee motion exercises were started early. At least this study proved the excellent role of Dynamic condylar screw in distal femur fractures.