CONCLUSION
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Eight cases of fracture of distal third of femur, admitted in OPD or Emergency department of M.L.B. Medical College, Jhansi treated by open reduction and internal fixation with AO Dynamic screw were included in this study.

The following conclusions were drawn from the study:

1. Age and sex of patients: Young (20-40 years) active adult males, who are more often involved in out door work, were most commonly (87.5%) affected by this fracture. Females comprised of only 12.5% of the total cases.

2. Mode of injury: Road traffic accident was the single most common cause (62.5%) of trauma resulting in distal femoral fractures.

3. Occupation: Mostly those persons suffered distal femoral fractures who were involved in outdoor activities eg., farmers, policeman, businessman.

4. Side of fracture: Both sides were involved with similar frequency with left side involvement slightly more than right side, one case in our study suffered B/L distal femoral fracture.

5. Type of fracture: In our study according to Muller et al classification (intra articular involvement) Type C was the commonest type of fracture pattern noted. This was because the fractures resulted mostly from high speed trauma.

6. Nature of fracture: Most of the cases had simple fractures (62.5%) and only 37.5% had compound distal femoral fractures.
This is probably due to the fact that of the severely compound distal femoral fractures were treated conservatively.

7. Interval between injury and surgery: 37.5% cases were operated within a week of injury but others were delayed because of compound injuries as time was given for adequate healing of soft tissues prior to surgery.

8. Duration of hospital stay: The average period of stay was about 23 days.

9. Non weight bearing exercises: knee bending exercises were started early as soon as the patient recovered from pain.

10. Quality of fixation: In most of the cases good anatomical reduction and secure fixation was achieved.

11. Clinical and radiological union: The average period of clinical and radiological union was 12.5 weeks.

12. Functional results: Most of the patients regained a good range of movement at knee joint. The average movement at knee joint was 118°.

13. Wt. Bearing: In most of the patients partial weight bearing with help of crutches was allowed after 4-6 weeks but full weight bearing was allowed only after clinical and radiological union.

14. Final evaluation: Taking the fracture union and range of movements at knee joint in account this procedure gave excellent results in majority of cases i.e. 50.0%, satisfactory in 3 cases (37.5%) and only one case had poor result.

15. Other important conclusions which can be drawn from this study are:
   a. Results were better in simple fractures than compound fractures.
b. Results were inferior when there was comminution at fracture site.

c. Best results were obtained in type A fractures according to Muller classification as compared to type C fractures (i.e. inter condylar fractures).

d. Anatomical reduction and stable fixation with AO dynamic screw allowed early weight bearing and early movements of neighbouring joints.

e. Compression lag screw and barrel plate helped in rigidity and stability of fixation by enhancing inter fragmentary compression.

f. Early mobilization of patients helped to avoid hazards of recumbency.

g. Application of Dynamic condylar screw is less technically demanding and allows freedom in flexion-extension plain.

h. This procedure has good results in osteoporotic and grossly comminuted fractures.

i. Better results were obtained in case of heavy workers than others.

j. This procedure should be done in every fracture of distal third of femur (except undisplaced or grossly compounded).