



## ▼ POST GRADUATES ABSTRACTS

### PG - 60 : COMPARISON OF FUNCTIONAL AND RADIOLOGICAL OUTCOME OF PLATE OSTEOSYNTHESIS VERSUS INTRAMEDULLARY INTERLOCKING NAILING IN EXTRA-ARTICULAR DISTAL 3RD TIBIA AND FIBULA FRACTURES.

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**Introduction:** Distal 1/3rd extra-articular tibia and fibula fractures account for 10% of fractures of lower limb. Most of the time it requires surgical intervention. Proximity of this fracture to the ankle joint, less blood supply and subcutaneous nature of this bone makes treatment more complicated. Intramedullary nailing and plating are the two standard commonly carried out procedures for the treatment of distal tibia and fractures.

**Methods and materials:** This was a prospective (October 2015 and January 2017) and retrospective study (January 2010 to June 2015) to analyse and compare the functional and radiological outcome of extra-articular distal tibia and fibula fracture treated with closed reduction intramedullary with interlocking nailing and, open reduction internal fixation with plating at Department of Orthopaedic Surgery, Pondicherry Institute Of Medical College, Pondicherry. Functional outcome was assessed using KOOS (Knee Injury and Osteoarthritis Outcome score) and

AFAS (American Foot and Ankle Score). Radiological union was assessed using RUST (Radiological Union Scale for Tibia). We studied total of 57 patients of which 34 patients were treated with closed reduction intramedullary interlocking nailing and 23 patients were treated with open reduction and internal fixation with plating.

**Results:** Knee function assessed by KOOS score was higher in plating group than nailing group and was statistically significant ( $p=0.01$ ), Where as Ankle function assessed by AFAS score was higher in nailing group than plating group and was statistically significant ( $p=0.01$ ). Radiological union assessed by RUST, though score is better in nailing group it was not statistically significant ( $p=0.376$ ).

**Conclusion:** In our study, we conclude that nailing had better clinical outcome as compared to plating at the ankle as compared to knee, where the plating had no role. Nailing had a better patient compliance and

fewer complications than plating. Hence, nailing is our procedure of choice for extra-articular distal tibia fractures.

**Key words:** Distal 3<sup>rd</sup> tibia fractures, intramedullary nailing, tibia plating, non-union distal 3<sup>rd</sup> tibia.