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In the modern age of high speed traffic, industrialisation and mechanisation of life, number of accidents are increasing day by day, there by causing various bone injuries. Fracture of the tibial shaft is one of the commonest fracture of lower extremity. As one third of its surface is subcutaneous through most of its length, compound fractures are common in the tibia than any other long bone. Further more the blood supply of the tibia is more precarious than those bones which are enclosed by thick muscles. Delayed union, non-union and infections are frequent complications in fractures of tibial shaft.

Though the fracture of tibial shaft is common, the method of choice of treatment continues to remain controversial and poses a challenge for orthopaedic surgeons. In literature many methods of treating these fractures have been advocated and there have been many analyses of the end results of such treatment but all of them have some or the other shortcomings.

On the one hand there is a view that these fractures should be treated with conservative methods. On the other there are various surgical techniques for fixation by plates, intramedullary nails and highly mechanical external fixator. The conservative treatment
by conventional toe-to groin POP cast poses the problems of prolonged immobilization, prolonged recumbency, post immobilization stiffness, osteoporosis, muscular wasting, post-plaster oedema, thromboembolic phenomenon and occasionally psychiatric manifestations. As a result patient takes 5-6 months, before he goes back to his work which adversely affects the econom of the family and the society.

The conservative surgeons like Dehne and Sarmiento (1974) have encouraged functional treatment with patellar tendon bearing (P.T.B.) cast or brace, which has become popular especially in comparison with conservative treatment with toe-to groin POP cast. The PTB cast provides support for the fracture site and lessens the load on skeletal system by converting the leg into semi-rigid hydraulic tube. On the other hand, walking in PTB cast provides uniform intermittent compressive pressure which promotes osteogenesis. Again in stable fractures it is a satisfactory method but in unstable ones it is very difficult to maintain the reduced position only by plaster cast, resulting into malunion, delayed union or non-union.

External fixation devices have enjoyed long period of enthusiastic use. They afford certain advantage owing to more rigid fixation, early
mobilization, protective care for wound without disturbing the fracture alignment or fixation and thus causing least joint stiffness, oedema, muscle atrophy and osteoporosis. The highly mechanized metallic fixation devices have some disadvantages, being costly and difficult in assembling the fixator by the uninitiated surgeon.

Open reduction and internal fixation, although results in good anatomical reduction and rigid immobilization avoiding a few of the complications of conventional closed method, yet carries a definite risk of infection and delayed union. It disturbs the normal healing process by periosteal stripping and draining of the fracture haematoma.

The introduction of strong clover leaf nail combined with principle of reaming out the medullary canal and the development of image intensifier have revived interest in closed nailing. Lottes (1954) and Kuntscher (1958) have reported encouraging results with such technique. still this method is not in common use and is practised only in big centres because of certain limitations such as a specialised traction device and image intensifier.
If the favourable features of intramedullary nailing and functional PTB cast are amalgamated, a fruitful symbiosis will result. So in our study there is fixation of fracture shaft tibia by intramedullary nailing followed by functional PTB cast for early weight bearing in selected cases.