Title: “FUNCTIONAL OUTCOME OF DISTAL FIBULA FRACTURES WITH SYNDESMOTIC INJURY MANAGED BY ANATOMICAL LOCKING COMPRESSION PLATE WITH SYNDESMOTIC SUTURE BUTTON FIXATION”

Aims and objectives:

1. To evaluate 20 cases of distal fibula fractures with syndesmotic injury managed by anatomical locking compression plate with syndesmotic suture button fixation
2. To analyse the functional outcome, fracture healing pattern, syndesmotic joint integrity

Materials and methods:

Study centre: Department of Orthopaedics
Kilpauk Medical College Hospital
Kilpauk, Chennai – 10.

Study design: Prospective Study

Inclusion criteria:
- Adults > 18 years of age
- Fracture type – WEBER B AND C
- RADIOLOGICAL – MRI showing rupture of ATFL/PTFL
- XRAY – ABNORMAL TIBIOFIBULAR CLEAR SPACE AND TIBIFIBULAR OVERLAP

Exclusion criteria:
- Weber type a fractures
- Weber type b and c without syndesmotic injury
- Age < 18 years
- Fractures with open wound

Sample size: 20

Protocol:

All the cases were evaluated with routine Ankle radiographs for distal fibula fracture and syndesmotic injury, MRI ankle taken to check for syndesmotic ligament integrity. Anatomical LCP Fibula and syndesmotic suture button applied for all cases. Functional outcome assessed using AOFAS score. Serial follow-up done and functional outcome assessed.
Results:

20 cases were operated and followed up and AOFAS score had mean of 92.6. 17 cases had excellent outcome and 3 cases had good outcome. One case had infection which settled with culture specific antibiotic. The average time taken for union was 12.1 weeks. No case required routine implant removal. All the cases had early return to their activities without persisting pain.

Conclusion:

The fixation of distal fibula fractures with syndesmotic injury with anatomical Locking compression plate and syndesmotic suture button fixation is an effective method of fixation with excellent functional outcome.

Keywords: Anatomical LCP, Syndesmosis, Suture button, tibiofibular ligament.