STUDY ON LOCKING COMPRESSION PLATE IN HUMERAL SHAFT NON-UNION

DR.V.SANTHOSH M.B.B.S
DR.K.SARAVANAN MS ORTHO
DR.D.NANDAGOPAL M.B.B.S

DEPARTMENT OF ORTHOPEDICS, VINAYAKA MISSIONS MEDICAL COLLEGE AND HOSPITAL, KARAikal.

ABSTRACT
Humeral shaft nonunions are frequently seen in Orthopaedic practice. Osteosynthesis with bone grafting is the treatment of choice. Locking compression plate (LCP) is the latest implant used in treating them. We retrospectively evaluated the outcome of use of LCP in humeral shaft non-union resulted by both conservative management and following failed internal fixations.

KEY WORDS: Humeral shaft fractures, non union, locking plate.

INTRODUCTION:
Osteosynthesis with bone grafting is the treatment of choice for humeral shaft non-union. We retrospectively evaluated the outcome of Locking Compression Plate in humeral shaft non union resulted by both conservative and following failed internal fixations.

MATERIALS AND METHODS:
Eighteen patients with non-union of humeral shaft in which ten were treated by traditional bone setters and followed by failed internal fixation were included in this study. The mean duration of non-union was 18.3 months (range 8-22). The mean follow up period was 18 months (range 12-26). The mean age of patients was 44.4 yrs (range 22-60). All patients underwent osteosynthesis with LCP and autologous cortico cancellous iliac crest graft. The outcome measures include radiographic assessment of fracture union and preoperative and postoperative function using modified constant and Murley scoring system.

RESULTS:
All fractures united following osteosynthesis. Average time for union was 15 weeks (range 10 - 24). We did not have any delayed union or non-union. Functional evaluation using constant Murley score showed excellent result in 14 good in 3 and fair in 1.
DISCUSSION:
1. Treatment of non-union humeral shaft fracture continues to be a challenge to orthopedic surgeons.
2. Surgical management is the treatment of choice for non-union.
3. LCP has a unique advantage as it can be used in the treatment of non-union in patients with osteoporosis and in patients who had any form of internal fixation as a index procedure.

CONCLUSION:
1. In our study all patients treated with LCP and bone grafting achieved 100% union.
2. We concluded that LCP is safe and reliable in achieving union in all age groups with any activity level when used judiciously.
REFERENCES: