

International Conference on

DENTISTRY AND ORAL HEALTH

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WORLD DERMATOLOGY AND COSMETOLOGY CONGRESS

September 03-04, 2018 | Bangkok, Thailand

R K Singh, Arch Gen Intern Med 2018, Volume 2 | DOI: 10.4066/2591-7951-C2-005

**EFFICACY OF MANDIBULAR FRACTURE
FIXATION METHODS IN INFERIOR
ALVEOLAR NERVE RECOVERY****R K Singh**

KG Medical University, India

Introduction: Mandibular fractures that occurs between mandibular foramen and mental foramen can result in injury to the inferior alveolar nerve. Various factors have been reported to influence the incidence of inferior alveolar nerve injury in mandibular fractures including site and type of fracture, extent of displacement and type of treatment etc.

Material & Method: This study comprised of 74 patients having mandibular fractures, attending the outpatient department and emergency unit of Department of OMF Surgery, King George's Medical University, Lucknow. Patients were diagnosed based on clinical examination as well as radiographic interpretation. Informed consent was taken from each patient to participate in the study. Patients were randomly divided into two groups: group A: number of patients-37, patient underwent arch bar placement and maxillo-mandibular fixation. Group B: number of patients- 37 (considering 18.91% drop out ratio). Patients underwent osteosynthesis using 2.0 mm miniplate. Clinical evaluation was done as, pain (VAS Scale), swelling, malocclusion, step deformity and tenderness mobility of segments and neurosensory testing of inferior alveolar nerve injury at the interval of one week, 1.5 months, three months, six months and 12 months post operatively. Displacement of fracture was assessed on panoramic radiograph by measuring displacement of inferior alveolar canal in millimeter.

Result & Discussion: In this study 79.1% of the patients were males in group A and 94.2% in group B. All patients were divided into three groups depending upon the displacement of inferior alveolar canal. In group A 37.5% patients presented with paraesthesia when Displacement was 0-4 mm, 82.4% patients presented with paraesthesia when displacement was 4.1-8mm, 100% patients presented with paraesthesia when displacement was >8.1 mm. In our study, preoperatively in group A 29.6%, 63.0% and 7.2% patients presented with displacement of 0-4mm, 4.1-8 mm and >8.1 mm of IAN canal respectively while in group B 21.4%, 57.1% and 21.4% patients presented with displacement of 0-4 mm, 4.1-8 mm and >8.1 mm of IAN canal respectively. Patients with 0-4 mm displacement showed recovery within 1.5 months in groups A and B in group B 72% patients with displacement of 4.1-8mm showed the rapid recovery of inferior alveolar nerve injury at the period of 1.5 months while in group A 28.5% patients showed the recovery in 1.5 months and 78.5% patients showed recovery in three months. In group B with >8.1mm displacement of IAN canal 55.5% patients showed recovery at three months and in group A none of the patients showed recovery in three months.

BIOGRAPHY

R K Singh has completed his MDS from KG Medical college, Lucknow in 1985. He joined KG Medical University in 1991 as Assistant Professor and from 1999 working as Professor in the Department of Oral and Maxillofacial Surgery. He published 75 papers in national and international journals and supervised more than 100 MDS, MS and PhD thesis as guide and coguide. He has been serving as Chief Advisor of *National Journal of Maxillofacial Surgery*.

rk Singh@kgmcindia.edu