ABSTRACT

BACKGROUND:

The sensory disturbances of the IO nerve are frequently present in zygomatic complex fractures. In most cases fracture lines involve the IO foramen, canal, or fissure the nerve can be damaged by a secondary mechanism through a blunt, crush type of injury or by a bony compression of the nerve at the fracture site as it leaves the IO foramen. The regenerative capacity of IO nerve is a controversial topic in the literature. The recovery rate of sensation depends on several factors, including the nature of injury to the nerve, the time between the injury and surgical intervention and method of treatment. To assess the neurosensory recovery of infra orbital there are several subjective methods. This prospective study was designed to assess the neurosensory recovery of infra orbital nerve following isolated zygomatic maxillary fractures.

AIM:

To assess the infraorbital nerve injury following isolated unilateral zygomaticomaxillary complex fracture and to assess the recovery of infraorbital nerve injury over the period of six months

MATERIALS AND METHODS:

This is a prospective study conducted on 15 patients with isolated unilateral zygomatic complex fractures (ZMC) with clinically
and radiographically isolated complex zygomatic maxillary complex fractures (ZMC), who were planned for open reduction and internal fixation (ORIF) in the Department of Oral and Maxillo-Facial Surgery, Adhiparasakthi dental college and hospital, Melmaruvathur, from 2014-2016. Patients with comminuted zygomatic fractures, combined Le fort fractures, bilateral zygomatic complex fractures and non-displaced fractures were excluded in this study. Subjective methods of light touch monofilament test, cotton wisp test, cold thermal test and two point discrimination test were performed preoperatively, postoperatively - I week, I month, III month and at VI month were evaluated and compared to the normal side.

RESULTS:

All the patients have underwent open reduction and internal fixation under general anaesthesia with mini plates and screws, there was no significant changes in postoperative period of I week, I month. There was statistically significant changes at the post operative period of VI month, all the patient had got infra orbital nerve recovery.

CONCLUSION:

The incidence of functional nerve disturbances is acceptable, since the progression towards recovery is inevitable. This study also states that the patients underwent open reduction with internal fixation had a good recovery of the nerve injury.

(Key words: IO nerve, Zygomaticomaxillary complex fractures, Neurosensory Assessment, Nerve Injury)