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Maxillofacial injuries in road traffic accidents with special reference to Dakshina Kannada, Karnataka, India

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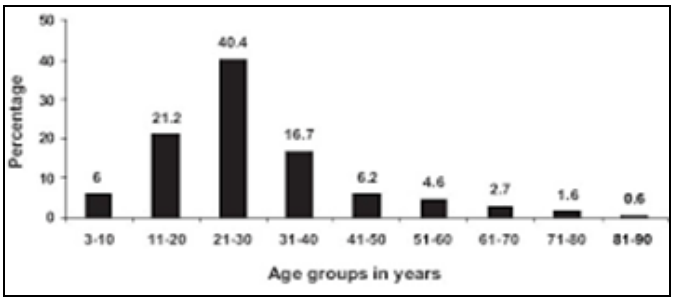
Abstract
The study involved the effect of maxillofacial injuries in Karnataka India. The sample of patients (N-1140) was systematically selected in accordance to their reporting their injury cases at the local medical center. The majority of the accidents were found to be involving a demographic between 21 and 40 years. Several methods were used for the treatment of the injuries including open reduction, closed reduction and conservative management. Preventive measures such as awareness were also identified as very effective in the yielding of more favorable clinical outcomes.

Keywords: maxillofacial injuries, accidents

Introduction
Maxillofacial injuries refer to the injuries that affect the facial and neck regions of the body. Road traffic accidents have been especially being identified as having the potential of causing such injuries. To determine the extent of the effects made by road accidents on these kinds of injuries, this paper highlights clinical studies that have been conducted as regards to the Dakshina Kannada District of Karnataka, India (Dsouza, Rao, Kumar and Diaz, 2014) [2]. The paper focusses on the ear nose and throat as its primary area of focus. The clinical trial was conducted in a tertiary care center where by the criteria of identification of the sample group was the through admission of road accident patients in the center (Kamath *et al*, 2012) [4]. The objective of the clinical trial was to determine the demographic that was most affected by these injuries and how their cases were handled in the health care facility (Kapoor and Kalra, 2012) [5].

Study objective and patients sampled
The samples of patients reviewed were 1140. The preliminary observations of the group revealed that most of the incidences occurred in the evening. The larger proportion of the patients were identified to be males at about 40% of the total cases recorded (Dsouza, Rao, Kumar and Diaz, 2014) [2]. The second parameter under observation was the nature of the injury that the patients went through. It is estimated that the major injuries were in the ENT regions also referred to as the soft tissue injuries and several injuries on the pan facial structures (Dsouza, Rao, Kumar and Diaz, 2014) [2]. These observations were initially very important since the study was aimed at exploring different trajectories of tackling these injuries due to their rampant nature in India. The susceptibility of the face to these injuries is what made it a primary region of focus in the clinical study of the consequences of road traffic accidents as regards to maxillofacial structures and the injuries suffered during these injuries (Malara, Malara and Drugacz, 2006) [6]. The next objective of the clinical study was to find out the methods of treatment that were used in the tackling of maxillofacial injuries and their effectiveness (Kapoor and Kalra, 2012) [5].



Source:http://www.ijdr.in/article.asp?issn=0970-9290;year=2008;volume=19;issue=4;spage=304;epage=308;aulast=Chandra.

Fig 1: Age distribution of maxillofacial injuries.

Treatment process
The patients first underwent a diagnosis process that started with the assessment of the history of the patient. Clinical diagnoses were then made using radiographs, submentovertex views and occipitomental view of the patient. After the clinical examinations, the patients were predominantly treated using conservative management. The injuries on the ENT regions were estimated to be 2% but were experienced with the different patients that were assessed (Singh, Malkunje, Mohamed and Singh, 2012; Singh, 2011) [10, 9]. Most of the injuries were treated using closed reduction, followed by open reduction and finally by observation (Iida *et al*, 2001) [3]. Close reduction was identified as helping the patients avoid

hospitalization, get treatment at a low cost and reduce the risk of infections from the process (Nitte Blogs, 2016) [7]. This was important especially given most of the victims were double-wheeled motorized transport users between the age of 21 and 40 years old (Sharad, Agarwal and Agarwal, 2015) [8]. The final aspect of the study was to diagnose the root of the injuries. It is believed that the accidents were as a result of the increase in population hence traffic volumes in the region.

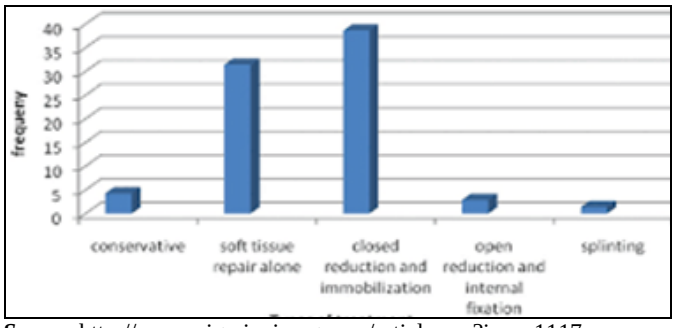


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Fig 2: Types of treatment

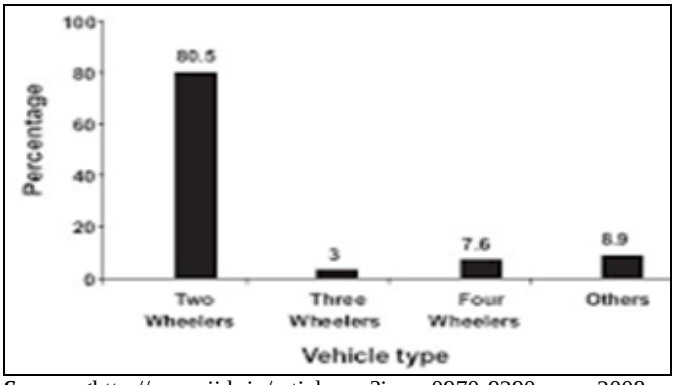

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Fig 3: Type of vehicle involved in RTAs

Part of the conclusion on the provision of better clinical outcomes as regards to the injuries suffered in this manner was the implementation of prevention measures. These would include awareness and traffic education meant to help the young population become more responsible in their interaction with traffic. This is especially because road traffic accidents were identified as the major cause of accidents in the region in which the clinical study was conducted (Agnihotri, Galfat and Agnihotri, 2014) [1]. Another important observation that was made was the ignorance of the population about the timelines they had in order to get to the medical center on time to receive treatment. The study was wide but covered essential aspects of maxillofacial injuries in the Dakshina Kannada District of Karnataka, India.

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