

EPIDEMIOLOGICAL ANALYSIS OF 57 MAXILLOFACIAL TRAUMA CASES

Muhanned Salah Abdulsattar^{*1}, Raed H. Ogaili¹, Lames H. Almanseekanaa² and Alaa Jasim Mohamed Ali³

¹Department of Maxillofacial Surgery, College of Dentistry, Kerbala University, Iraq.

²Department of Basic Medical Science, College of Dentistry, Kerbala University, Iraq.

³Department of Maxillofacial Surgery, Alhussaini Medical City, Kerbala, Iraq.

*e-mail: raedogaili@uokerbala.edu.iq

(Received 12 December 2018, Revised 17 March 2019, Accepted 31 March 2019)

ABSTRACT : The epidemiology of maxillofacial trauma varies in geographic zones and different countries. Population, lifestyle (culture, social, and economic status), and concentration can affect the control of maxillofacial trauma. So, in this study, the epidemiological data and treatment plan concerning maxillofacial trauma were evaluated and analyzed. This study is a retrospective study which performed on 57 patients who suffer from maxillofacial trauma and suspected facial bone fractures. All patients were presented to the emergency department in three different hospitals and specialist dental center in Karbala city from the period of January 2017 till January 2018. Epidemiological data sheet (checklist) and medical records were depended to achieve the study aims. Based on t-test, statistical analysis was done. Based on accidents causes, the ratio of Road Traffic Accidents (RTA) n=38 (66.67%), Assault n=9 (15.79%), Falls n=7(12.28%), War Injury n=1(1.75%), and other injury n=2 (3.51%) of the samples. In other classify that depend on the anatomical sites, the mandible was the most common fractured bone in RTA, Assaults, and falls. The previous studies and this study that discussed the epidemiology of maxillofacial traumas show various etiologic factors, demographic properties, causes of injuries and fracture patterns probably due to social, cultural and the policy of governmental especially in roads and traffic rules.

Key words : Epidemiological analysis, maxillofacial injuries, trauma. Karbala provenance.

INTRODUCTION

One of the most common types of trauma is physical injuries and may occur due to various reasons. Regarding the prevalence of physical traumas and their unhealthy effects on individuals, these injuries are among the major health concerns worldwide (de Oliveira, de Sá Paes, Paes, Valiati, & Pagnoncelli, 2012). The incidence of maxillofacial fractures is a significant proportion of traumatized patients. The epidemiology of facial fractures varies with the cause, type, and severity of injury depending on the studied population. The understanding of the severity and cause, of maxillofacial trauma can aid in establishing research and clinical priorities for effective treatment and prevention of these injuries.

The incidence and etiology of maxillofacial (MF) fractures and trauma vary widely in different regions of the world according to cultural consequences economic, social, traffic regulations awareness and alcohol consumption (Dube, Rao, & Tanwar, 2014). Etiologically, road traffic accidents (RTAs), interpersonal violence, and missiles or gunshots injuries are the most common causes (Ali, 2011).

Improvements in automobile design, geographical location, economic, social & cultural status like use of seat belts and airbags are known to affect the outcome in RTAs (Akama, Chindia, Macigo & Guthua, 2007). RTAs are a leading cause of morbidity and mortality in adults below the age of 50 years (Kamulegeya, Lakor, & Kabenge, 2009).

The management of maxillofacial injuries remains a challenge for surgeons, demanding a high level of expertise and skill. Internal fixation and open reduction of maxillofacial fractures has been reported as a satisfactory facial appearance and restoration of function (Lee, Snape, Steenberg, & Worthington, 2007).

The vast majority of maxillofacial injuries are preventable; therefore, preventive strategies targeting at the etiology of these injuries is important in order to reduce their occurrence. A clear knowledge of injury characteristics and treatment outcome is vital in order to achieve acceptable functional and cosmetic outcomes (Shah, Ali Shah, & Salam, 2006).

In the United States, accidents are the third cause of death in all age groups (Simons-Morton, Lerner, & Singer,