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INCIDENCE OF ZYGOMATIC BONE FRACTURES AMONG OTHER FACIAL BONE FRACTURES IN BABYLON PROVINCE : A CLINICAL RETROSPECTIVE STUDY

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ABSTRACT : Maxillofacial fractures frequently occur in patients or people subjected to traumatic injuries. Zygomatic bone fracture is a common facial fracture given its prominent position. The following types of fractures are arranged from the most to the leastcommon to occur: nasal, zygoma, mandibular, maxillary, and orbital.

This study aims to evaluate the incidence, prevalence, etiology, and distribution of zygomatic complex and midface bone fractures. Thus, this study was conducted on a group of people with different gender, ages, types, and severity at Al-Hilla Teaching Hospital in Hilla, Babil City, Iraq from March 2015 to August 2017.

Key words : Zygomatic, facial, bone, fracture, skelton, middle third.

INTRODUCTION

Trauma is one of the main causesof morbimortality; thus, focusing on this issue iscrucial in the world. Approximately 16,000 people die daily due totrauma (Krug *et al*, 2000). The face is the region that is most associated with emergencies compared with other organs or systems becausethe face is the most exposed part of the body and the least protected (Alvi *et al*, 2003).

Mandibular and nasal fractures are the most prevalent fractures that occur in the maxillofacial region, followed by zygomaticbone fractures. The incidence of facial fractures variesaccording to type, region, cause, and severity ofthe sample case. The main cause of maxillofacialtrauma in several developed countries is due to vehicular accidents; recent datafromthese countries indicate that interpersonal violenceis another common cause of maxillofacialtrauma (Hogg *et al*, 2000). The trend of maxillofacial injuries associated withautomobiles worldwide can be decreased by improving road conditions, installing modern safety systems in vehicles, implementing punishments to drunk drivers, lowering speed limits, requiring safety systems in vehicles, and the implementing the use of safetybelts (Brasileiro and Passeri, 2006).

The patterns of injuries that affect the faceshould be analyzed considering the increase in incidence and prevalence of facial traumas;the analysis can aid in emergency care in terms of providing accurate and effective treatment (Rajendra *et al*, 2009).

Zygoma occupies a prominent position on the face, and zygomatic complex fractures are the second most prevalentin themidfacial skeleton after nasal bone fractures (Tanzer, 1951; Middleton, 1953; Manson *et al*, 1999; Laxenaire *et al*, 1997). Cosmetic defects and disruptions in ocular and mandibular functions occur because of fracture and dislocation of this bone. Zygomatic complex fractures cause disruption in the articulation of zygomaticomaxillary complex. These fractures should be reduced and fixed effectively. Inadequate reduction can cause a reduced projection of the malar region of the face after skeletal healing, thereby leading to cosmetic deformities. Accurate assessment should be performed in relation to skull base posteriorly and midface anteriorly (Kieser *et al*, 2002; Lim *et al*, 1993). The etiology, incidence, and predilection for gender and age of trauma depend on social, economic, and political statuses of the population studied and can vary significantly depending on the location of the samples (Ellis *et al*, 1985; Gomes *et al*, 2006).

Functional and aesthetic deformities occur when zygomatic complex fractures are minimally displaced. All facial traumas, especially above the mouth, require a thorough ocular examination, including the estimation of visual acuity for each eye. Zygomatic complex fractures are frequently complicated by orbital and eye adnexa injuries, which are considered the critical negative results (Mackinnon *et al*, 2002).

The management of orbital–zygomatic (OZ) fractures restores the function of orbital complex and facial esthetics of the patient. The function of the eyes depends on the accurate 3D positioning of the bones that comprise the