Dental trauma of permanent incisor teeth in children/
Kirkuk city

Maha Isam Abdulazeez¹, Anas Qahtan Hamdi², Haitham Younis Mohammed³, Mohammed Ahmed Mustafà⁴

¹²³College of dentistry, Tikrit University
⁴University of Samarra, College of Applied science, pathological Analysis

Abstract
The aim of present study to demonstrate traumatic dental injuries in the permanent incisor teeth among 8-12 years old children treated in Al-Salam Health Center - Specialist Dental Center/ Kirkuk city. 387 children were reviewed and only patients with traumatic dental injuries were taken. Type of tooth injury was classified according to modified Ellis and Davey crown fracture. Data on age, gender, number of injured teeth and type of injury were also collected from the dental records for the period 20018-2019. Records of 387 examined children showed that the traumatic dental injury was 8% (31). Of those 84 patients, 67.7% (21) were boys and 32.3% (10). Single tooth injury was found in 77.4% of the cases, while 22.6% had two teeth injury. The most frequent injuries were class II crown fracture (48.5%; N=15), followed by class III (35.5% N=10), class IV (9.6% N=3) and class I (6.4% N=2) respectively. It’s concluded from present study that the prevalence of dental trauma is relatively low in Kirkuk city.

Keywords: permanent incisor teeth; dental trauma; crown fracture.

INTRODUCTION
Injuries of oral are the most fourth of the body injuries among 7-30 years old [1]. Over three quarters of all traumatic injuries of oral happen in early years of life [2]. Dental trauma injuries always include teeth of upper anterior and therefore can have a significant effect on aesthetics of facial and dental. This considerably coincides with adolescence and can have a considerable effect for certain children on their life type [3], causing factors for injuries of traumatic dental contain physical features like increased the incisal over jet, protrusion and incompetence of lip [4-7]. A larger part of injuries of traumatic dental include only one tooth (permanent) and the most often affected are incisors of maxillary central [8-9]. Trauma etiology can be classified into: (1) violence of domestic -neglect of child, (2) Sporting effectiveness—riding of bicycle or horse, (3) different accidents of road and children of handicapped [10-11]. School and home are areas where injuries of traumatic dental happen. It has been shown that the injury place was associated with gender, i.e. the most common injury place for boys was firstly school and then home, while for girls (female) this was vice versa [12-14]. So, the aim of the present study was to demonstrate traumatic dental injuries in the permanent incisor teeth among 8-12 years old children in Kirkuk city.

MATERIALS AND METHODS
A sample of 387 school children (boys and girls) aged 8-12-year-old were chosen from various primary schools in Kirkuk city and the survey was occured during the time between the beginning of at May 2018 and the end of December 2019. All children (boys and girls) with fracture of dental crown were chosen in the study. injury of traumatic dental was categorized according to modified Ellis and Davey [15] of fracture of crown which include:

Class I—Simple crown fracture including little or no dentin.
Class II—Extensive crown fracture including considerable amount of dentin but not the dental pulp.
Class III—Extensive crown fracture including exposure of the dental pulp.
Class IV—entire crown loss.
Dental trauma of permanent incisor teeth in children/ Kirkuk city

Data on age, gender, number of injured teeth and type of injury were also collected from the dental records.

RESULTS
From 387 dental records, the traumatic dental injury was 8% (31). Of those 84 patients, 67.7% (21) were boys and 32.3% (10). Single tooth injury was found in 77.4% of the cases, while 22.6% had two teeth injury as shown in table (1). The most frequent injuries were class II crown fracture (48.5%; N=15), followed by class III (35.5%; N=10), class IV (9.6%; N=3) and class I (22.6%) respectively as shown in table (2).

<table>
<thead>
<tr>
<th>No. of injured teeth</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19 (79.2%)</td>
<td>5 (20.8%)</td>
<td>24 (77.4%)</td>
</tr>
<tr>
<td>2</td>
<td>2 (28.6%)</td>
<td>5 (71.4%)</td>
<td>7 (22.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>21 (67.7%)</td>
<td>10 (32.3%)</td>
<td>31 (100%)</td>
</tr>
</tbody>
</table>

Table 1. Number of injured permanent incisor teeth per patient.

DISCUSSION
From 387 dental records, injury of traumatic dental about 8% (31). The rate of trauma among boys (male) was reported to be more than girls (female) who come to the clinic with injuries of dental. This might be associated to their inclination to be more active and more probable to participate in sport games [16]. many studies have referred that boys suffering injuries of dental at least twice as of girls. The boys:girls percent different from 1.5:1.0 to 2.5:1.0 [17-19]. Whereas girls was more mature in their behavior and may be more interested about their appearance which probably reflects the play features of girls toward more stability than boys, as well as one can assume that mother were more concerned about the esthetic of their female daughters than males, seeking dental treatment quickly after injuries [20].

About age average that used in this study, Eyuboglu et al. referred that the highest distribution of injuries of traumatic dental at the age 8-10 [21]. outcome of the present study showed that the prevalence of traumatized children was found to be more with class II malocclusion (48.5%) compared to other type of occlusion. These results were closely similar to those recorded by other studies [22-23].

REFERENCE
