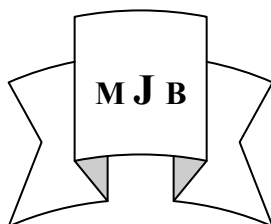


## Evaluation Traumatic Fracture of Anterior Permanents Teeth within Age 8-11 Years Old in Boys and Girls.

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### Abstract

Clinical data of involve 554 healthy children, with traumatized permanent anterior teeth fracture in this children who were treated in to Hilla Specific Dental Clinic during school time, were collected. The type, reason, and mode of the trauma, the number of teeth involved in each person and time elapsed before treatments were analyzed. The results suggested that boys were more susceptible to traumatic injury of anterior teeth, and the highest prevalence of dental trauma was determined in the 8 years age group and higher than boys in the 10 years age girls group type score 3(Coronal enamel and dentine fracture without pulp exposure) and the result show that boys with 8-9 years age were more susceptible to traumatic injury score 4 type (Fracture from Coronal enamel and dentine involve expose pulp area) was the most common type. Most children went to hospital in 2 to 24 hours after injury. Falls was the most common reason.

### الخلاصة

المعلومات العيادية المتضمنة عن خمسمائة واربع وخمسين طفل وطفلة مصابون بتكسر في الاسنان الامامية نتيجة لحادث والتي تم احالتهم وعلاجهم في المركز التخصصي لطب الاسنان في الحلة خلال فترة الفصل الدراسي وتم تسجيل لنوع و سبب وتحليلها قبل اجراء اي علاج وكانت النتائج وجدت ان نسبة العاليا لحوادث تكسر الاسنان الامامية تصيب البنات في سن العاشرة من عمرهن وهي اعلى من نسبة الاولاد في سن الثامنة من عمرهم وفئة الكسر هي درجة الثالثة (تكسر تاج السن ويشمل منطقة المينا والعاج السني دون شمول منطقة اللب)وكما وجدت النتائج ان الكسور من درجة الرابعة(تكسر تاج السن ويشمل منطقة المينا والعاج السني مع شمول منطقة اللب)بتعرض لها الاولاد في الغالب للفئة العمرية بين سن الثامنة و سن التاسعة من عمرهم وكانت فترة مراجعتهم للمركز واجراء العلاج لهم بعد مرور فترة زمنية من ساعتين الى اربعة وعشرين ساعة بعد الحادث وكان سبب الكسر هي حوادث السقوط للاطفال

### Introduction

Anterior teeth have specific position in our life for importance in speech and masticator function and support our percentile as esthetic projection Gel bier,

1974 said teeth most frequently involved in traumatic injuries are the maxillary central incisors. Children age 10-9 years is the most susceptible group for this type of injury [1-3].

**Table 1** Show teeth grow in Human oral cavity

Tooth name	Appear in mouth cavity	Completion of the crown
Upper central incisor	7-8 years	4-5 years
Upper lateral incisor	8-9 years	4-5 years
Upper canine	11-12 years	6-7 years

Lower central incisor	6-7 years	4-5 years
Lower lateral incisor	7-8 years	4-5 years
Lower canine	9-10 years	6-7 years

**Aim of the Study**

The purpose of this study is to clinically compare without using radiograph film in comparing between groups of boys and girls which complain of traumatic fracture of anterior permanent teeth in enamel and dentine reigns with or without Pulp exposure in ages rang between ( 8) to ( 11) years.

**Subjects and Method**

1- This study involves Clinical data of involve 554 healthy children, with traumatized permanent anterior teeth fracture in this children samples were I diagnosis alone them in to Hilla Specific Dental Clinic during school time, were

collected. with traumatized permanent anterior teeth fracture , who were treated in to Hilla Specific Dental Clinic during school time. The type, reason, and mode of the trauma, the number of teeth involved in each person and time elapsed before treatments were analyzed. Samples of study: 130 of them complain fracture permanent anterior, , teeth divided in to (266) boys group and (167) girls group, the Sterilization of dental mirrors and other dental diagnosis tools by autoclave

2-Data scores: As seen in table number (2, 3) the distribution of score according to finding in our samples under diagnoses.

**Table 2** Samples scores distribution

Scores degree	Score discretion	Score number
1	No fracture of any tooth tusse	0
2	Fracture within enamel area only	1
3	Fracture within enamel and dentine area only without pulp exposed	2
4	Fracture from enamel and dentine involve expose pulp area	3

3- Dental diagnosis tools:

- A- Sterile dental mirrors.
- B- Sterile dental probes.
- C- Sterile kidney dish.
- 4- Autoclave Sterilizer.

**Result**

The age range from(8-11)years as shown in Table(1),Table(2) show Distribution of Diagnosed fracture anterior permanent teeth according to age andSex

**Table 3** Samples distribution

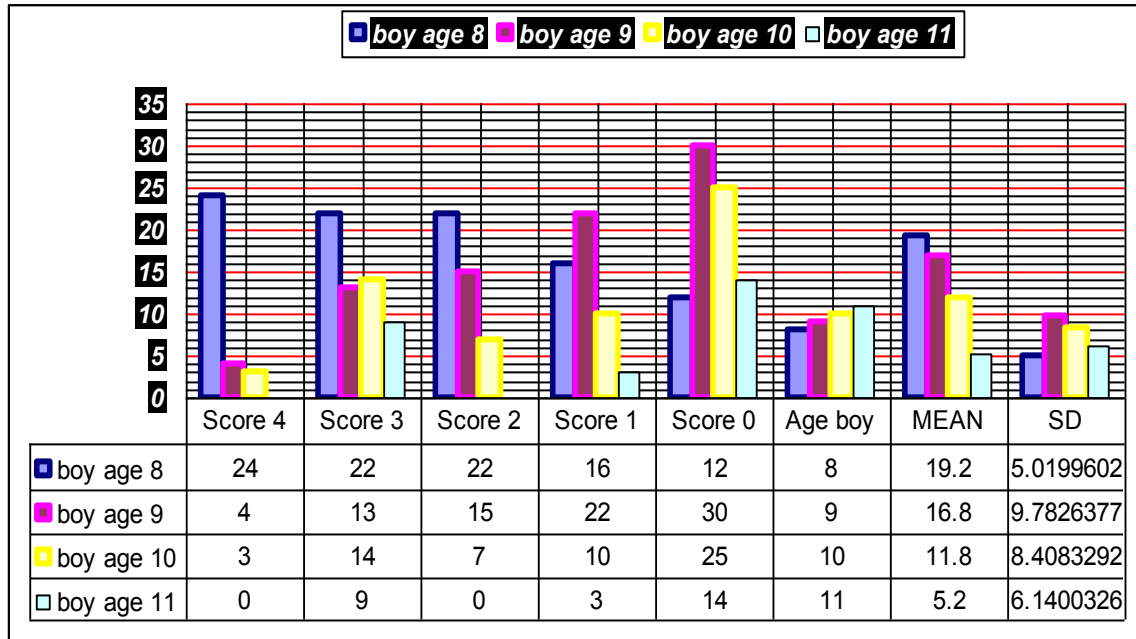
Age in year	Boys group samples numbers with percentages	Girls group samples numbers with percentages	Total groups sample numbers with percentages
8 years old	80 (47.1%)	30 (33.3%)	110 (42.3%)
9 years old	50 (29.4%)	15 (16.7%)	65 (25%)
10 years old	30 (17.6%)	25 (27.8%)	55 (21.2%)
11 years old	10 (5.9%)	20 (22.2%)	30 (11.5%)
Total	170 (100%)	90 (100%)	260 (100%)

**Table 4** Samples scores distribution in boy

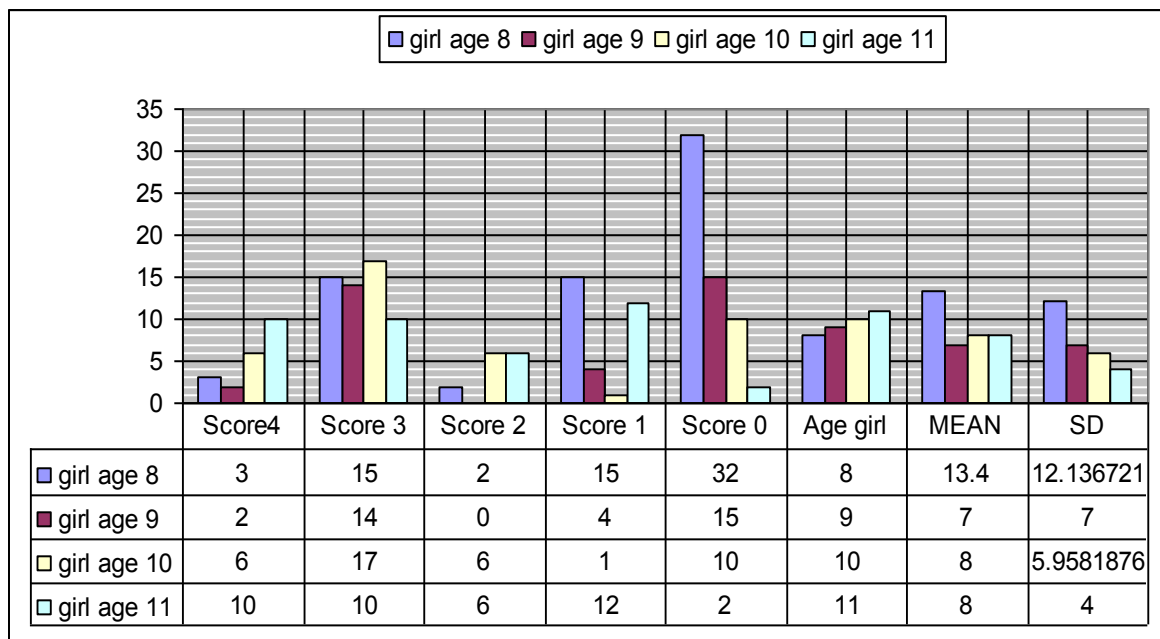
Age boy	Score 0	Score 1	Score 2	Score 3	Score 4	Mean	SD
8	12	16	22	22	24	19.2	5.01996
9	30	22	15	13	4	16.8	9.782638
10	25	10	7	14	3	11.8	8.408329
11	14	3	0	9	0	5.2	6.140033

**Table 5** Samples scores distribution in Girl

Age girl	Score 0	Score 1	Score 2	Score 3	Score4	Mean	SD
8	32	15	2	15	3	13.4	12.13672
9	15	4	0	14	2	7	7
10	10	1	6	17	6	8	5.958188
11	2	12	6	10	10	8	4



**Diagram 1** boy scores distributions.



**Diagram 2** girl scores distributions.

**Discussion**

The final clinical data obtained as seen in tables below and its diagrams the higher traumatic fractures are in the boys group sample as seen in table(3,4) and diagram number (1) more potency traumatic effect within age 8 years boy old and reduce in its potency with increase boys age. as seen in table (3,5) and diagram number (2) the more potency traumatic

effect in (age 11) yeas old girls group sample and we when compare between this two tables we see it more traumatic fracture happen with age 8 years old but in low degree than that in boys, and this agree with Lihong Ge, etal in study (4).When make compares within boy’s samples we find the incidences of higher traumatic fractures( score 4) decrease with increase boys group sample’ age

11years old as seen in table(3, 4)and diagram (1). In comparison to girl group samples there is low degree of (score 4 )within( age 11)years old.

### **Conclusion**

1- Falls was the most common reason. In boys and girls samples where collected within school time.

2- The results suggested that boys were more susceptible to traumatic injury of anterior teeth, and the highest prevalence of dental trauma was determined in the 8 years age.

3- Higher than boys in the 10 years age girls group type score 3(Coronal fracture without pulp exposure).

4- the result show that boys with 8-9 years age were more susceptible to traumatic injury score 4 type (Fracture

from enamel and dentine involve expose pulp area).

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