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Original Research

Assessment of cases of maxillofacial trauma in children

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***ABSTRACT*:**
Background: The Facial Injury Leaves Everlasting Impact On Psychological Development And Behavior Of Patients. The Present Study Was Conducted To Assess The Cases Of Maxillofacial Trauma In Children. **Materials & Methods:** The Present Study Was Conducted On 146 Children Age Ranged 7-16 Years Of Both Genders. Maxillofacial Trauma Involving Facial Bones And Reason For Trauma Was Recorded. **Results:** Age Group 7-9 Years Had 40 Boys And 36 Girls, 10-12 Years Had 30 Boys And 24 Girls And 13-15 Years Had 10 Boys And 6 Girls. Maxilla Was Involved In 34, Angle In 36, Zygoma In 12, Nasal Bone In 12, Body In 30 And Symphysis In 22. The Difference Was Significant (P< 0.05). Reason For Trauma Was Road Side Accident In 31, Fall In 40, Sports Injury In 65 And Domestic Violence In 10. The Difference Was Significant (P< 0.05).**Conclusion:** Maxillofacial Trauma In Children Is Common Nowadays. Common Reasons Are The Road Side Accidents, Sports Injury And Fall.

Key Words: Children, Trauma, Zygoma

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INTRODUCTION

Out Maxillofacial injuries of children and adolescents are less common than adults. The facial injury leaves everlasting impact on psychological development and behavior of patients.[1] Although many make a good recovery, morbidity includes temporary or permanent disfigurement, loss of function and psychosocial problems. Facial trauma may, rarely, be life‑threatening. The spectrum of craniofacial injuries is related to the specific developmental stage of the craniofacial skeleton.[2] Falls during leisure activities, both at home and on the playground, collisions, bicycle accidents and different sports activities have been reported as the primary causes of facial injury in young children and teenagers worldwide.[3]
Facial trauma associated with severe injury is real challenges to surgeons, and there is subsequent functional and esthetic impact to the growing child and the economic and emotional burden to the patient and family can be overwhelming.[4] Anatomic and developmental differences between pediatric patients and adults alter the diagnosis and management of injury. This lower incidence of facial fractures partially reflects the underdeveloped facial skeleton and paranasal
sinuses of preadolescent children leading to craniofacial disproportion and additional strength of the maxilla and mandible from unerupted dentition.[5] The present study was conducted to assess the cases of maxillofacial trauma in children.

MATERIALS & METHODS

The present study was conducted in the department of Pedodontics. It comprised of 146 children age ranged 7-16 years of both genders. All were informed regarding the study. Ethical approval was obtained from institute prior to the study.

Patient information such as name, age, gender etc. was recorded. Maxillofacial trauma involving facial bones and reason for trauma was recorded. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Age wise distribution of patients

Age group (Years)	Boys	Girls
7-9	40	36
10-12	30	24
13-15	10	6

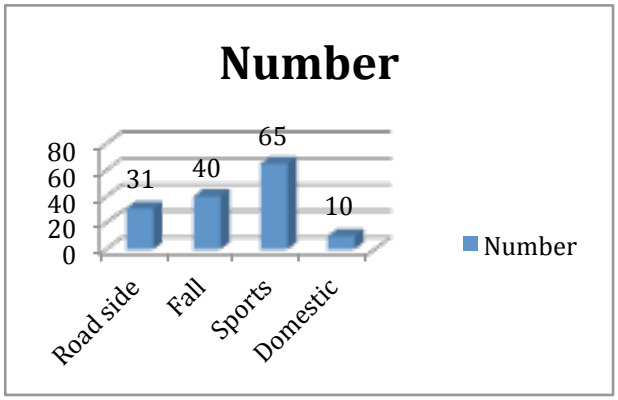
Table I shows that age group 7-9 years had 40 boys and 36 girls, 10-12 years had 30 boys and 24 girls and 13-15 years had 10 boys and 6 girls.

Table II Maxillofacial trauma in children

Site	Number	P value
Maxilla	34	0.01
Angle of mandible	36	
Zygoma	12	
Nasal bone	12	
Body	30	
Symphysis	22	

Table II shows that maxilla was involved in 34, angle in 36, zygoma in 12, nasal bone in 12, body in 30 and Symphysis in 22. The difference was significant (P< 0.05).

Graph I Reason of trauma



Graph I shows that reason for trauma was road side accident in 31, fall in 40, sports injury in 65 and domestic violence in 10. The difference was significant (P< 0.05).

DISCUSSION

The maxillofacial region is the most exposed part of the body and is more vulnerable to trauma. Trauma is one of the major causes of death among people under 40 years of age. Major causes for maxillofacial fracture as reported worldwide are interpersonal violence, traffic accidents, fall and sports injuries. RTA contribute significantly to mortality and morbidity throughout the world and in large numbers in developing countries. Reports reveal that 20% to 60% of all road traffic injuries involve some form of maxillofacial injury, and 62% involve motorcycles.[6] The present study was conducted to assess the cases of maxillofacial trauma in children.

In present study there were 146 children who presented with maxillofacial trauma. Age group 7-9 years had 40 boys and 36 girls, 10-12 years had 30 boys and 24 girls and 13-15 years had 10 boys and 6 girls. Thorén et al[7] conducted a retrospective review among 500 children and adolescents patients of age group 6 years to 16 years suffered or suffering with maxillofacial and skull fractures presenting to ten Level I trauma centers over a 4 year period. The data collected for this study included age, gender, etiology, associated maxillofacial trauma, anatomic site of fracture and treatment. The most common cause of trauma was traffic 35%, followed by falls 24% and sports 22%. Mandible was commonest bone prone to fracture, followed by maxilla and nasal bone. Mandible fractures accounted for 72% of all maxillofacial fractures.

We observed that maxilla was involved in 34, angle in 36, zygoma in 12, nasal bone in 12, body in 30 and Symphysis in 22 children. Arvind et al[8] found that the most common facial fractures were mandible, nasal and maxillary/zygoma. The most common mechanisms of injury are motor vehicle collisions, violence and falls. These fracture patterns and mechanisms of injury varies with age. Cranial and central facial injuries are more common among toddlers and infants, and mandible injuries are more common among adolescents. Although bony craniofacial trauma is relatively uncommon among the pediatric population, it remains a substantial source of mortality, morbidity and hospital admissions. We found that reason for trauma was road side accident in 31, fall in 40, sports injury in 65 and domestic violence in 10. To decrease the occurrence of injuries caused by falls, strategies should include awareness campaigns, parent's education about the mechanisms of falls, increased parental supervision during playing activities and legislative measures to ensure the safety of windows and balconies. In sports, the use of preventive measures is less frequent than in motor vehicles. The importance of preventive measures should be emphasized. Supervising adults, i.e., coaches, administrators, teachers and parents should be educated.[9]

CONCLUSION

Maxillofacial trauma in children is common nowadays. Common reasons are the road side accidents, sports injury and fall.

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