

ATTITUDE AND KNOWLEDGE TOWARDS TOOTH AVULSION AMONG SPORTS TEACHERS

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ABSTRACT

Background: Tooth avulsion is one of the commonest types of physical sport injury. The management of these cases is critical in order to prevent complete loss of tooth and its subsequent consequences. The prognosis of such avulsed tooth depends on prompt treatment. The emergency management of such avulsed tooth is made by the sports teacher who is present at the sports ground. The first-aid knowledge about tooth avulsion is must for the sports teacher. **Aim:** The objective of the present study was to evaluate the knowledge about management of tooth avulsion among sports teachers in Ahmednagar District. **Methods:** A sample of 60 sports teachers were interviewed from different schools. The data was collected using a self administered questionnaire containing seven items which was distributed among the sports teacher from different schools. **Results:** we found that 90% of the sports teachers were not having the first-aid knowledge about the emergency management of avulsed tooth and the benefit of timely care. This demands an effort to properly educate sports teachers about first-aid management and consequently change their attitude towards dental trauma.

Keywords : Tooth Avulsion, Knowledge of Sports Teachers.

Introduction :

Dental injuries especially avulsion of a tooth is a distressing event, often causing psychological as well as physical problems, since it normally involves the highly visible front teeth. Tooth Avulsion is the complete displacement of a tooth from its socket due to accidental or non-accidental injuries and may cause loss of healthy teeth [1]. Separate studies show that 13-39% of all dental injuries were Sports related and of all sports accidents reporting 11-18% were maxillofacial injuries [2]. Males are traumatized twice as often as females, with the maxillary central incisor being the most commonly injured tooth [3-4]. In children, sports were found to be responsible for 13% of over all oral traumas [5].

Previous studies shows the most common cause of Dental Avulsion in children are sport activities, especially contact sports, and the most common places that these accidents occur are sport fields and primary school, so professional sports teacher working with the children on play ground should

know the importance of emergency management and how to manage cases of tooth avulsion because they are in close proximity to the children during sports and are the first one to be called upon to assist the children after the accident.

Materials and methods:

A simple questionnaire was prepared which contained 7 questions about tooth avulsion. For each question there were possible answers from which sports teacher were asked to answer. The questionnaires were given to sports teacher, who were asked to fill. Written consent was taken from them for participation in our project.

Ethical clearance: This study was cleared and approved by the Ethical committee of SMBT Dental College Sangamner. All the participants were willing voluntarily to participate in the study, a written consent was obtained.

The data regarding the Knowledge about tooth Avulsion was recorded on structured pretested close ended questionnaire by the personal face to face interview with the study subjects by the trained interviewer. The following data were recorded:

Questionnaire sample:

Q. No: 1 Have you ever heard the term 'Avulsion of tooth'?

Yes
No

Q. No: 2 Have you ever faced a situation with tooth avulsion in your school?

Yes
No

Q. No: 3 Have you ever received any information about providing first-aid in cases of dental injuries? If yes then give details of information you have

Yes
No

Q. No: 4 what according to you is the most common cause Tooth Avulsion?

I. Road traffic accident.
II. Sports-related injury
III. Fall
IV. Violence
V. Other than the above mentioned, please state.....

Q. No: 5 what would you do first (if you ever face a situation) in a cases of an injury which would result in avulsion of the tooth.

I. I would inform the family and immediately arrange for the transfer of the child to a dentist.
II. I would inform the family and immediately arrange for the transfer of the child to his / her home.
III. If the only injury was avulsion of a tooth and no other more serious trauma would be present, I would leave the child at school.
IV. I would inform the director and let him/ her decide about any possible steps which should be taken or not.
V. I would call a dentist on phone and take his advice.

Q. No: 6 if you observe that a tooth was completely displaced from the mouth of an injured child. In which of these options would you place it?

(i) On a paper
(ii) In a clean cloth
(iii) In water
(iv) In milk
(v) In the hand or pocket.

Q. No: 7 concerning such accidents, where would you approach with the child for treatment?

(i) To a Dentists
(ii) To a Medical Doctor.

Questionnaire sample used

Results:

93.33% of sports teacher never heard of the word "tooth avulsion". 90% of them never received any information about providing first-aid in cases of dental injuries. 96.67% of them replied they would immediately transfer the child to a dental clinic. 73.33% of the respondents would keep the avulsed tooth in a dry cloth and transfer the child and the avulsed tooth to a dental clinic. Only 10% of the sports teachers were aware of emergency management of Avulsed tooth, they got the information from the dentist, when they had taken a child with tooth avulsion from previous Dental injuries. The most common cause for Tooth avulsion in school was sports; second common was fall / running, followed by road traffic accident and inter-personal violence.

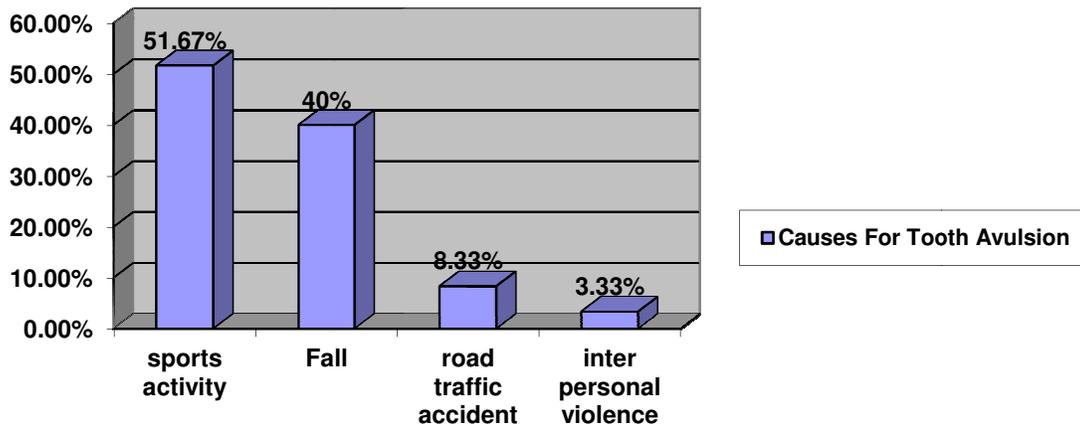


Table 1: Causes for Tooth Avulsion at Schools.

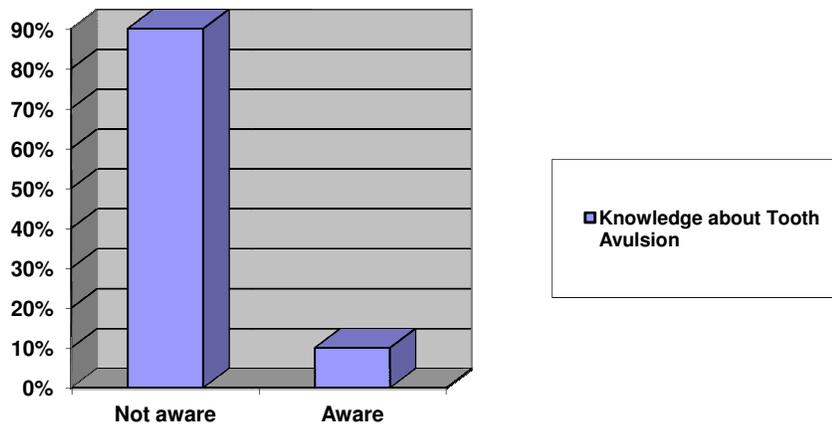


Table 2: Knowledge about Tooth Avulsion among School Teacher.

Discussion:

A Permanent tooth that has been completely knocked out the mouth requires prompt and effective management and should be reinserted into its socket. This can be done by all individuals. If the avulsed tooth can be located, it is best to immediately and atraumatically replant it at the accident site. The time limit for immediate replantation varies, ranging from 5 to 30 min; ideally the recommended time limit is 20 minutes or less. The results of our study confirmed that most of the sports teachers (90%) are not aware of emergency management of Tooth Avulsion, which was quite high when compared to similar studies done previously in Western Countries [6–8]. **In our study** 73.33% of the respondents would keep the avulsed tooth in a dry cloth and transfer the child and the avulsed tooth to a dental clinic. Keeping in a dry atmosphere will affect the prognosis of the tooth. Most of the teachers were not aware of

storage media in which avulsed tooth have to be stored till the patient is transferred to a dental clinic after the accident. Milk, as it is easily available can be used as storage media after the accident till a dentist is sought for the treatment.

As Sporting activity was the most common cause for tooth Avulsion in our study which was Similar to studies done in western countries [6]. Sports teacher can play a crucial role in managing dental injuries because they are in close proximity to the children during sports and are the first one to be called upon to assist the children after the accident. By our study it's clear that if Sports Teachers knew about emergency management of tooth avulsion, prognosis of the Avulsed tooth would have been better. Given the high incidence of sports related dental injuries at school, it is very important to provide treatment for a dental emergency for the well being of the tooth. Hence awareness regarding the proper first-aid treatment of a dental injury due to sports on the playground is of paramount importance among the trainers, coaches, school teachers and those personnel who might have the first contact with a child after the accident.

First-aid management of Avulsed tooth on Sports ground:

These knocked out teeth can often be re-implanted under favourable conditions. If the tooth can be replanted within minutes after the accident, there is a greater chance the tooth will be retained for life [9]. If replantation of the tooth is not possible then transport the patient at once to a dentist with tooth completely submerged in isotonic saline or milk [10].

Dos and Don'ts:

Don't:

- 1) Panic
- 2) Disturb the yellow part (root) of the tooth.
- 3) Do not Brush or scrub the tooth
- 4) Do not sterilize the tooth
- 5) Rinse the tooth in water

Do:

- 1) Remain Calm
- 2) Wear gloves to protect yourself from blood-borne infection.
- 3) Locate the tooth as quickly as possible and collect and save all the fragments to show the dentist.
- 4) handle the tooth only by the white part (crown) at all the times
- 5) Avoid additional trauma to tooth while handling.
- 6) If debris is on tooth, gently rinse with water for 10 seconds only.
- 7) Immediately replant the tooth in its socket using the other teeth as guides and stabilize by biting down gently on the towel or handkerchief. Do only if athlete is alert and conscious.
- 8) Seek the dental surgeons help as soon as possible.
- 9) If unable to reimplant:

Best - Place tooth in a physiologic transport medium (e.g. Hank's Balanced Saline Solution) [9, 10]. 2nd best - Place tooth in milk [9, 10]. 3rd best - Wrap tooth in saline-soaked gauze. 4th best - Place tooth under athlete's tongue. Do this only if athlete is conscious and alert [5]. Time is very important. Replantation within 30 minutes has the highest degree of success rate. Transport Immediately to Dentist.

If the tooth is dirty or contaminated, it should gently be rinsed with milk or water. Do not store the tooth in water. It should be noted that if a primary (baby or milk) tooth is knocked out, it should not be replanted as it could damage the permanent tooth bud in formation. But that requires skills for identification of the primary teeth.

Conclusion:

The Findings from this survey suggest that very few Sports teachers knew about emergency treatment about Avulsed tooth. Hence there is an urgent need for training in Emergency management in Dental injuries for the sports teachers. Further more efforts should be directed to use mouth protection devices especially in contact sports where there is high risk of injury to the orodental structures.

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