

A STUDY ABOUT KNOWLEDGE OF TOOTH AVULSION AND ITS MANAGEMENT AMONG TEACHERS, PARENTS AND PARAMEDICAL STAFF OF HALDWANIBharat Bhushan Awasthi¹, Saurabh Singh²**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: incidence of tooth avulsion has been reported from 0.5 to 16% common among children of age group 7 to 14 years mainly due to traumatic sports. **AIM:** of the study was to evaluate the knowledge of school teachers and parents of students studying there and para medical staff of various hospitals who arrive at accident site first, so that they should know what to do in case of tooth avulsion and how it can be preserved. **MATERIAL AND METHODS:** A study was conducted in Susheela Tiwari Govt. Medical College Haldwani to evaluate the knowledge of tooth avulsion. For this a series of multiple choice questions were designed among teachers of various schools, parents of children (preferably of age group 7 to 14 years) and para medical staff attending emergency of various hospitals in Haldwani region. 656 people participated in the study. **CONCLUSION:** There is insufficient knowledge regarding tooth avulsion and first aid treatment. Lack of knowledge among school teachers, parents, and paramedical staff, though paramedical staff is better off than the other two groups. Providing better knowledge and information by an educational program about tooth avulsion is necessary.

KEYWORDS: Tooth Avulsion, Tissue Culture Medium, Trauma, Reimplantation.

INTRODUCTION: Due to trauma, a tooth is forced out of its socket; this condition is known as tooth avulsion. Incidence of tooth avulsion has been reported from 0.5 to 16% of traumatic dental injuries.¹

This is common among children of age group 7 to 14 years mainly due to traumatic sports injuries while playing games like football and cricket, falling from a bicycle. Boys show higher prevalence than girls, in age groups 12 and 13.^{2,3} Factors like protruded maxillary incisors and insufficient lip closure may affect the extent of dental trauma. Other causes of avulsion may be trauma due to traffic accidents.

Success of reimplantation depends upon drying time and storage medium.⁴ Clinical evaluation of avulsed teeth studies have shown that immediate reimplantation is necessary for regeneration of the periodontal ligament after reimplantation.⁵

Aim of the study was to evaluate the knowledge of school teachers and parents of students studying there and para medical staff of various hospitals who arrive at accident site first, so that they should know what to do in case of tooth avulsion and how it can be preserved.

MATERIAL AND METHOD: A study was conducted in Susheela Tiwari Govt. Medical College Haldwani to evaluate the knowledge of tooth avulsion. For this a series of multiple choice questions were designed among teachers of various schools, parents of children (preferably of age group 7 to 14 years) and para medical staff attending emergency of various hospitals in Haldwani region. 656 people participated in the study that was given a set of multiple choice questions designed in Hindi and

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English. Same set of question papers were given to all but they were marked for 3 group's teachers' parents and Para medical staff. Question paper was given Para medical staff teachers and students of same school and students where asked give question paper to their parent for their assessment of knowledge about the subject which was later collected from them and evaluation was done.

As health talk and awareness program tooth avulsion and its emergency management information was given to the participant to improve awareness through a power point presentation. Data collected was analyzed and better presentation reported in tabular form
Result.

Question 1: When question was asked do they know about tooth avulsion.

	Paramedical (56)		Teachers (70)		Parents (530)	
	Numbers	%	Numbers	%	Numbers	%
Yes	40	71.42%	25	35.7%	159	30%
No	16	28.57%	45	64.2%	371	70%
Total	96	171.41%	95	135.6%	689	130%

Table 1

71.42 % paramedics replied in yes while 28.57 replied in NO. 35.7 % teacher replied in Yes and 64.2% said No among parents 30% said yes while 70% said NO (question 1)

Question 2: Can tooth re implantation be done? y/n.

	Paramedical (56)		Teachers (70)		Parents (530)	
	Numbers	%	Numbers	%	Numbers	%
Yes	32	57.14%	21	30%	142	26.79%
No	24	42.85%	49	70%	388	73.20%
Total	56	99.99%	70	100%	530	99.99%

Table 2

57.14 % said yes and 42.85% said NO among paramedics .30 % teachers said Yes and 70% said NO While 26.79% teachers yes while 73.20 % said NO.

Question 3: Critical time for avulsed tooth.

	Paramedical (56)		Teachers (70)		Parents (530)	
	Numbers	%	Numbers	%	Numbers	%
Less than 15 min	6	10.71%	10	14.28%	160	30.18%
Less than 30 min	20	35.71%	15	21.43%	120	22.64%
One hour	20	35.71%	20	28.57%	100	18.86%
More than one hour	7	12.50%	10	14.28%	40	16.98%
Up to 24 hour or more	3	5.35%	15	21.43%	10	11.32%
Total	56	99.99%	70	99.99%	530	99.98%

Table 3

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Question 3: In answer to the question 3. A. For less than 15 min. 10.71% paramedics said for extra oral critical time for tooth avulsed tooth to be reimplemented. 14.28% teachers and 30% parents feel the same. For less than 30 min. 35.71% paramedics agreed, 21.43% teachers agreed and 22.64% parents agreed. For more than one hour 12.5% for paramedics 14.28% for teachers and 16.98% parents For upto 24 hours or more 5.35% paramedics, 21.43% teachers, 11.32% parents. For upto 60min 35.71% paramedics, 20.57% teachers, 18.86% parents agreed.

Though there is little difference in percentage among three groups for correct Critical time for a avulsed a tooth to remain extra orally. Closest where paramedics. Even then there is a need for so all three groups need to be made more aware critical time.

Question 4: Best medium for storage of avulsed tooth.

	Paramedical (56)		Teachers (70)		Parents (530)	
	Numbers	%	Numbers	%	Numbers	%
Water	15	26.78%	20	28.57%	200	37.74%
Normal saline	17	30.35%	25	35.71%	150	29.24%
Milk	13	23.21%	15	21.42%	70	13.21%
Tissue culture medium (Hanks bank salt solution)	7	12.50%	5	7.14%	30	4.72%
Ice	4	7.14%	5	7.14%	80	15.09%
Total	56	99.98%	70	99.98	530	99.99

Table 4

For Water 26.78% Paramedics agreed, 28.57% teachers agreed, 37.74% parents agreed. For normal saline 30.35% of paramedics agreed, 35.71% of teacher, 29.24% of parents for milk 23.21% of paramedics, 21.42% of teachers, 13.21% of parents. ICE 7.14% of paramedics, 7.14 of teachers, 15.09% of parents, for tissue culture medium like (HBSS) 12.5% of paramedics, 7.14 % of teachers, 4.72 % of parents.

Question-5: If a tooth falls on ground and gets dirty then wash with.

	Paramedical (56)		Teachers (70)		Parents (530)	
	Numbers	%	Numbers	%	Numbers	%
Wash with water	20	35.71%	40	57.14%	190	35.85%
With normal saline	24	42.85%	10	14.29%	130	24.53%
Clean with gauze and cotton	4	7.14%	15	21.43%	150	28.30%
Wash with disinfectant (Betadine/savalon/sprit)	8	14.28%	5	7.14%	60	11.30%
Total	56	99.99%	70	99.99%	530	99.98%

Table 5

With Water: 35.71% of Paramedics agreed, 57.14% of teachers agreed, 35.85% of parents agreed, wash with normal saline. 42.85% paramedics, 14.29% of teachers, 24.53% of parents.

Clean with Cotton: 14.28% of paramedics, 7.14% of teachers, 11.3% of parents Wash with disinfectant (betadine, savalon, sprit) 14.28% of paramedics, 7.14% of teachers, 11.3% of parents.

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Sl. No.	Question		Paramedical(56)		Teachers (70)		Parents (530)	
			Numbers	%	Numbers	%	Numbers	%
1	Do they know What Tooth Avulsion is /fall out?	Yes	40	71.42%	25	35.7%	159	30%
		No	16	28.57%	45	64.2%	371	70%
		Total	56	171.41%	95	135.6%	689	130%
2	Can tooth re implantation be done? y/n	Yes	32	57.14%	21	30%	142	26.79%
		No	24	42.85%	49	70%	388	73.20%
		Total	56	99.99%	70	100%	530	99.99%
3	Critical time for avulsed tooth							
A	Less than 15 min		6	10.71%	10	14.28%	160	30.18%
B	Less than 30 min		20	35.71%	15	21.43%	120	22.64%
C	One hour		20	35.71%	20	28.57%	100	18.86%
D	More than one hour		7	12.50%	10	14.28%	40	16.98%
E	Up to 24 hour or more		3	5.35%	15	21.43%	10	11.32%
		Total	56	99.99%	70	99.99%	530	99.98%
4	Best Medium for storage of avulsed tooth :							
A	Water		15	26.78%	20	28.57%	200	37.74%
B	Normal saline		17	30.35%	25	35.71%	150	29.24%
C	Milk		13	23.21%	15	21.42%	70	13.21%
D	Tissue culture medium (hanks bank salt solution)		7	12.50%	5	7.14%	30	4.72%
E	Ice		4	7.14%	5	7.14%	80	15.09%
		Total	56	99.98%	70	99.98	530	99.99
5	If a tooth falls on the ground and gets dirty then what should be done in that case?							
A	Wash with water		20	35.71%	40	57.14%	190	35.85%
B	With normal saline		24	42.85%	10	14.29%	130	24.53%
C	Clean with gauge and cotton		4	7.14%	15	21.43%	150	28.30%
D	Wash with disinfectant (Betadine /savalon/sprit)		8	14.28%	5	7.14%	60	11.30%
		Total	56	99.99%	70	99.99%	530	99.98%

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CONCLUSION: Many teachers and parents don't know about tooth avulsion which is very common among school children among 7 to 11 years.⁷ There insufficient knowledge regarding tooth avulsion and first aid treatment these result where comparable to similar previous studied.⁸ Knowledge of tooth avulsion and its management is inadequate among para medical which were similar to findings of McCann et al.⁹

From the above study. It can be conducted that there is lack of knowledge among schools teachers parents and paramedical staff though paramedical staff is better off than two other groups.

Teachers in school and parents at home are the ones who spend their most of time with children so better knowledge tooth avulsion would be of great help then in reorganizing the problem deal with them effectively and thus would be helping in preserving and conserving the tooth so to provide better knowledge about the subject educational program about tooth avulsion would be necessary.

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