

"Traumatic injuries to anterior teeth in Dharwad- Hubli school children and assessment of awareness among school teachers with regards to emergency management of dental trauma."

By

Dr. K. Raksha Ballal

Dissertation Submitted to the Rajiv Gandhi University of Health Sciences, Bangalore Karnataka, In partial fulfillment of the requirements for the degree of

MASTER OF DENTAL SURGERY (M.D.S.) in PEDODONTICS AND PREVENTIVE DENTISTRY

Under the guidance of Dr. Rajesh T. Anegundi

Professor and Head
DEPARTMENT OF PEDODONTICS AND PREVENTIVE DENTISTRY
SDM COLLEGE OF DENTAL SCIENCES & HOSPITAL
DHARWAD

OCTOBER 2009

ABSTRACT

Background and objectives:

A traumatic dental injury and its sequelae are of concern to both the clinicians and the parents of affected children. The prognosis of dental injuries highly depends on correct and prompt emergency management and proper advice, which may frequently be the responsibility of people available at the injury site. School teachers are frequently required to deal with trauma in schools and thus their knowledge of emergency procedures is crucial to ensure a better prognosis of the clinical treatment. Most of the available retrospective studies on trauma in children and assessment of knowledge level of teachers presents a contrasting volume of data.

The paucity of available studies on Dharwad – Hubli school children and teachers initiated us to undertake the present study to determine the prevalence of traumatic injuries to anterior teeth in school going children of Dharwad – Hubli and to determine the common cause and place of occurrence of trauma. The study also included the assessment of knowledge level of school teachers regarding emergency management of dental trauma

Methods

The study was done in two parts. The first part of the study included surveying of 30,000 children aged 4-16 years from schools in Dharwad – Hubli region. The selected children were screened and those found with clinical traumatic injury were further examined for the type of traumatic injuries using Modification of Ellis classification by Mc Donald, Avery and Lynch (1983). The above classification was further modified and a 5th type was included

along with the main classification in order to separately include deciduous tooth trauma. After examination questions regarding time, place and cause of trauma was asked. In the second part 900 school teachers were surveyed using questionnaires. The questionnaires surveyed the teachers background and knowledge of management of traumatic injuries. The data collected were tabulated and analyzed.

Results

The statistical analysis of the results was done using Chi - square Test, Students t- Test, ANOVA Test and Sheffe's Post Hoc Multiple Comparison Test. The results showed that in the first part out of 30,000 children, 615 (2.05%) had traumatic injuries. The male to female ratio was 2.11:1.97. The common causes of trauma were play (60.16%), accidents (23.90%), and fights (15.93%). The common places of occurrence of traumatic dental injuries were home, classroom, school ground, road and field. The nursery group of 4-6 years experienced 0.36 % of injuries, while primary group experienced 1.50% and high school group experienced 0.20% respectively. Enamel – Dentin fracture without pulpal involvement was the commonest type of trauma and the teeth mostly involved were permanent maxillary central incisors. In the second part, teachers were divided into nursery, primary and high school category and the assessment of their knowledge showed that the teachers had average knowledge (47%) regarding management of dental trauma. Gender wise assessment amongst teachers in all three categories showed that male teachers had better knowledge as compared to female teachers. Overall in the high school category both male and female teachers had better knowledge compared to the other groups, of which males had significantly better knowledge.

Interpretation and conclusion: The prevalence of traumatic injuries in 4-16 years school children of Dharwad – Hubli was 2.05%. Males were more commonly injured than females. Play was the commonest cause and school ground was the most common place of traumatic injuries. Enamel – Dentin fracture without pulp involvement was the most common type and permanent maxillary central incisors were the most common teeth having traumatic injuries. School teachers had average knowledge regarding dental trauma management. High school male teachers had better knowledge as compared to the other categories.

The data derived from this study can be employed in an organized municipal effort to educate teachers, parents and school children about the immediate management and prevention of dental trauma.

Key Words: Traumatic injuries, Anterior teeth, Prevalence of trauma, Knowledge assessment.