

Editorial

Management of Trauma in Children based on Evidence and Best Practice

Trauma to the teeth and dentoalveolar structures can occur with devastating consequences for the child and their loved ones. It sometimes leaves the child with a life-long disability and a treatment burden for the rest of their lives. Broken bones always heal, but broken teeth never repair themselves ever again. Many traumatic injuries, such as avulsion, carry a poor prognosis even after treatments that are guideline-based. This is because certain factors, such as the dry extra-alveolar time, which is the single most important prognostic factor, are out of the control of a clinician who is providing treatment.



What is the role of the pediatric dentist in helping these children through the period of growth and development so that they grow into adulthood not carrying with them a life-long burden of disability or treatment need? In my opinion, pediatric dentists have two responsibilities. First, to provide the most effective and evidence-based treatments, but importantly to develop multidisciplinary teams for the management of these children. Second, initiate and participate in multicenter good-quality ethical research which would further develop and strengthen evidence for provision of the most effective care for children who are unfortunate enough to suffer from dentoalveolar trauma in childhood.

Provision of multidisciplinary care is highly desirable as dental trauma in childhood and adolescence can have multifaceted consequences due to the developing dentoalveolar structures. Liaison with orthodontics in particular may be required to plan treatment during the period of growth. Also novel treatments, such as autotransplantation, can be considered, but these generally require orthodontic input into the treatment planning. Autotransplantation is used extensively by my team at the Leeds Dental Institute and has excellent long-term outcomes. It provides the child with a life-long biological replacement of teeth that have been lost following trauma.

It is the responsibility of all specialists in any specialty, to undertake, or participate in high-quality ethical research. Many studies that are carried out in field of trauma, on which treatment guidelines have been based, are not of the rigorous quality as would be acceptable in the field of medicine and surgery. With the emphasis now firmly on evidence-based treatment philosophies, it is incumbent upon pediatric dentists to make sure that their treatment gives the best prognosis as is possible. The problem with many studies in the field of dental traumatology is that the numbers of individual injuries presenting to one center or an individual clinician are never of a large enough number to fulfil sample size requirements for a high-quality yield of evidence. Therefore, multicenter studies are the order of the day and, in a country, such as India, where there are a large number of specialty training programs and, therefore specialists, there is great opportunity for such research. Meticulous research methodologies and data collection, and analysis will be required. Many emerging countries, such as Brazil, Turkey, and China, have already many such studies underway. India needs to step up to this mark soon and stand up and be counted in the world of international research in dentistry in general and dental trauma in particular.

In order to help the individual clinicians provide the appropriate best evidences care for the child, The Dental Trauma Guide has been developed by Prof Jens Andreasen and his team. Dr Andreasen has dedicated his whole life to the field of dental traumatology research and the dental trauma guide is the pinnacle of all his work. I have been extremely fortunate in my professional life to learn from him and to be a part of this team. The Trauma Guide is an excellent tool that can be accessed online by one and all, totally free of cost, and from anywhere in the world (www.dentaltraumaguide.org). In addition to helping plan and provide the right treatment for the child following trauma, it is also an excellent educational tool which can be used by postgraduate students in pediatric dentistry and other specialties of dentistry.

All children who seek dental treatment from us deserve the best care that we can give them. For those who have suffered trauma and might have to spend their entire lives with a dental disability as a consequence, it is our duty to guide them through the acute aftermath of the injury, provide evidence-based care, and then with a multidisciplinary approach guide them through the period of growth and development so that they can reach young adulthood with minimal dental disability. All pediatric dentists as all oral health practitioners can greatly contribute to the quality of life of these children.

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