Editorial

Hands off and save Teeth!

An acute dental injury is a frightening experience for its victim. Blood, tears and fear characterize the event. For the dental clinician, often inexperienced in handling these injuries, the traumatized patient brings these features into the dental clinic. Chaos often reigns and the treatment problem seems overwhelming. Clinical treatment decisions can often be made in haste, with aggressive therapy or even worse, tooth loss to follow. Dentists do too much!

In a hospital setting, at the emergency service, often the least experienced residents are given the task. These residents have the admirable position of 100% treatment success. Acute treatment is provided and the patient referred to their own dentist. They seldom see the long-term result of either the injury or of their treatment. Because of this lack of follow-up, referral sheets might also be inadequate in its description of the extent of injury or the appropriate follow-up protocol. Hence, communication between the primary and secondary treatment agencies can be lacking.

In 1993, I spoke at an international conference on medical law and ethics in Copenhagen, Denmark. In that talk, I pointed out that despite all the malpractice suits that had been tried in the United States, there was not one that was involved with inappropriate treatment or unnecessary tooth loss following dental trauma. There are several reasons for the situation then and why it still exists today.

The first is the general public's lack of knowledge about correct dental care and generally complete trust in the dentist's explanation for the extent of injury which led to the given treatment.

The second is the mind set of 'defensive medicine or dentistry' that prevails in most countries, often due to the fear of legal repercussions for failed treatment and often due to the need to treat completely, which is enforced by present day casualty insurance coverage, often provided for by employers for their employees. Such programs only offer coverage while a person stays with their job. Once unemployed, insurance coverage is cancelled and whatever treatment is incomplete is considered a preexisting condition by the next insurance program; and as such, must be paid for out of the patient's own pocket, before a new employer-paid insurance can be affected.

This would imply that while longer observation periods might be the most prudent strategy following many dental injuries, dental practitioners are often forced to provide definitive treatment prematurely in order to ensure the patient full dental coverage after injury.

In 1972, the first edition of Andreasen's traumatic injuries of the teeth was published. This book marked a breakthrough in the understanding of the biology of dental injury. Up to that time, treatment was based on empirical experience and superstition. Teeth, which might have been saved, were often extracted because extraction was the one 'sure' treatment and problematic late healing complications could then be avoided. But in that textbook, injuries were classified and defined systematically. At the same time, the use of calcium hydroxide was described, which made it possible for inflammatory root resorption to be arrested; and teeth could thereby be maintained in the dental arch.

We are now in the age of implantology.

Dental implants have been shown to be a reliable treatment form for the replacement of lost teeth. However, in the excitement of this innovation, basic biological knowledge has often been forgotten. Clinicians often choose this relatively new form for treatment at the expense of teeth that could be kept if biological treatment principles are respected and, if correct assessment of the extent of injury is made, when the trauma patient is first seen.

This assessment is crucially dependent upon correct examination technique and will also provide information concerning long-term tooth survival: Which injuries have a positive long-term prognosis and which injuries will ultimately lead to tooth loss?

Courses in dental traumatology are aimed at providing the clinician with the tools necessary to diagnose dental injuries, assess long-term prognosis and provide biologically correct acute and follow-up treatment for the victims of dental injury.

Despite enormous efforts in producing textbooks that are the reference books for dentists around the world, more than 20 years' lecture activity for dentists and after almost 20 years' experience as dental consultant in Denmark advising dentists in the correct treatment of acute dental injury, it's become clear for me that the dental profession still needs help and direction in saving teeth that have been affected by acute mechanical trauma. Too many teeth are needlessly extracted. Too much unnecessary 'defensive' treatment has been performed. In an unpublished study of avulsed teeth in the 1960s, it was found that the best healing results after tooth replantation occurred when the tooth was repositioned in the jaw by the patient and then sought dental care 24 hours after injury. Dentists do too much!

Dental education has traditionally been based on the 'do something' principle. Clinicians look at their patients, pick-up an instrument and treat. The goal of my courses in 'Hands off and save Teeth!' is to describe the art and science of

dental traumatology as the clinical decision-making process of when to pick-up that instrument and when to let it lie on the bracket table and initiate intelligent observation 'therapy'. And, to teach the clinician that the latter approach is just as active as the former. Courses 'Hands off and save Teeth!' are based on material, compiled over the past 20 years and based on more than 40 years of clinical and experimental research. It is my hope that 'Hands off and save Teeth!' might lead to a better knowledge of the biology of dental trauma and wound healing so that a more intelligent treatment strategy will be followed and that the traumatic episode can be merely a memory and not the first step of a lifelong process' not only for the victim of dental trauma but also for the practitioner.

Hands off and save teeth SOMETIMES. The art of dental traumatology is knowing when to act.

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About Frances M Andreasen

She is an American-trained dentist and clinical researcher in Denmark, with more than 20 years' clinical research experience in the area of dental traumatology in order to improve treatment alternatives following acute injury. Moreover, her contact with private dental practitioners as dental trauma consultant for several insurance programs in Denmark has given her an insight into the problems generally encountered in providing dental care to victims of trauma. Contact with these dentists and discussion with colleagues from other countries has convinced her that Denmark, while having a population of just over 5 million inhabitants, is a microcosm that resembles other countries in the industrialized world. The problems seen there are generally the same as everywhere else.